

Michigan Prams

Pregnancy Risk Assessment Monitoring System

1998

***Michigan Department
of Community Health***



*John Engler, Governor
James K. Haveman, Jr., Director*

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EXECUTIVE SUMMARY

This is a summary of selected results of the 1998 Michigan Pregnancy Risk Assessment Monitoring System (PRAMS). The survey described here was conducted with a random sample of women who had given birth to a live infant in Michigan in 1998. The topics of the survey were selected based on their relevance to infant mortality and birth outcomes. Some of the highlights of the findings are presented here.

- Of pregnancies resulting in a live birth in Michigan in 1998, it was estimated that 41.8 percent were unintended (i.e., the pregnancy was not wanted or it was wanted later than it happened).
- Overall, 7.95 percent of live births were low birthweight infants. Teenaged women and women 30 years and older were more likely to give birth to low birthweight infants than were women 20-29 years of age.
- One-third (31.4 percent) of respondents were receiving Medicaid at the time of delivery.
- Four in 10 respondents (40.0 percent) reported that they were receiving assistance from the Women, Infants, and Children (WIC) program.
- Prenatal care was initiated in the first trimester by 87.1 percent of the respondents.
- About 82 percent (81.8 percent) of respondents indicated that they had their first prenatal care visit as early as they had desired.
- 68.0 percent of respondents indicated that private health insurance was a source of prenatal care payments.
- More than half of respondents (60.8 percent) reported having breastfed their infant for any length of time.
- The three main reasons for stopping breastfeeding were having to go to work or school (27.3 percent), the infant did not breastfeed very well (23.4 percent), and the mother did not have enough milk (25.0 percent).
- When asked about specific stressors, 75.3 percent of respondents indicated that they had experienced at least one of the stressors in the year prior to childbirth, and 24.3 percent had experienced four or more of the stressors. Stressors included items such as moving to a new home, a family death or illness, being unable to pay bills, and losing one's job.
- Overall, 30.3 percent of respondents smoked cigarettes three months before pregnancy, 17.3 percent smoked in the last three months of the pregnancy, and 24.5 percent smoked in the three month period following childbirth.
- 4.1 percent of respondents reported drinking alcohol in the last three months of the pregnancy.

INTRODUCTION

The Michigan Pregnancy Risk Assessment Monitoring System (PRAMS) is an ongoing survey project of post-partum mothers in Michigan. PRAMS is part of an effort to reduce infant mortality and adverse birth outcomes by providing information useful for developing and implementing intervention programs and for evaluating existing programs. This data is used to monitor progress toward national and state pregnancy-related health objectives, including the increase of positive birth outcomes. PRAMS is also used to identify and monitor selected self-reported maternal behaviors and experiences that occur before, during, and after pregnancy among women who deliver live-born infants.

The indicators in this report cover a variety of topics, including low birthweight, birth control use, intendedness of pregnancy, health insurance, prenatal care, alcohol and tobacco use, major life stressors during pregnancy, intensive care for infants, hospital stays (pre-delivery and delivery), breastfeeding, resources needed, and resources accessed.

The data collection methods used by PRAMS include several components. In 1998 approximately 200 post-partum women were selected monthly from a frame of eligible birth certificates and were sent mailed surveys. If the women did not initially respond, follow-ups included additional mailings and telephone contact. In order to increase participation of urban and minority women, data collection also included a hospital component. In this component, black mothers were sampled from hospital delivery logs and interviews were attempted before the mother left the hospital. A mailed questionnaire followed two to six months after the in-hospital interview, which focused on post-partum experiences (See Methodology for more details).

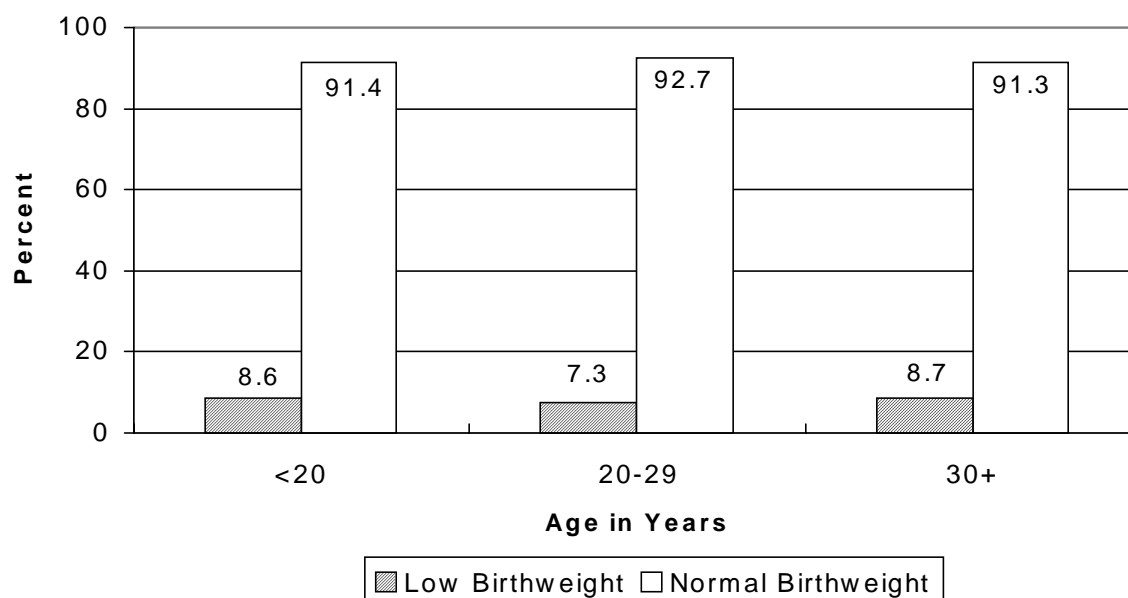
This report covers results from 1998 calendar year data. The body of the report provides graphical presentation of selected results. All results presented are weighted which provides estimates that are reflective of Michigan women who had a live birth in 1998 (see Appendix I for further information on weighting). Results are also presented along with demographic characteristic breakdowns in appended tables. The 95 percent confidence intervals (CI) are included in the appended tables and are referenced in the text with the \pm symbol. PRAMS data are intended to be representative of women whose pregnancies resulted in a live birth. Therefore, caution should be used in generalizing the results to all pregnant women.

1998 RESULTS

Low Birthweight

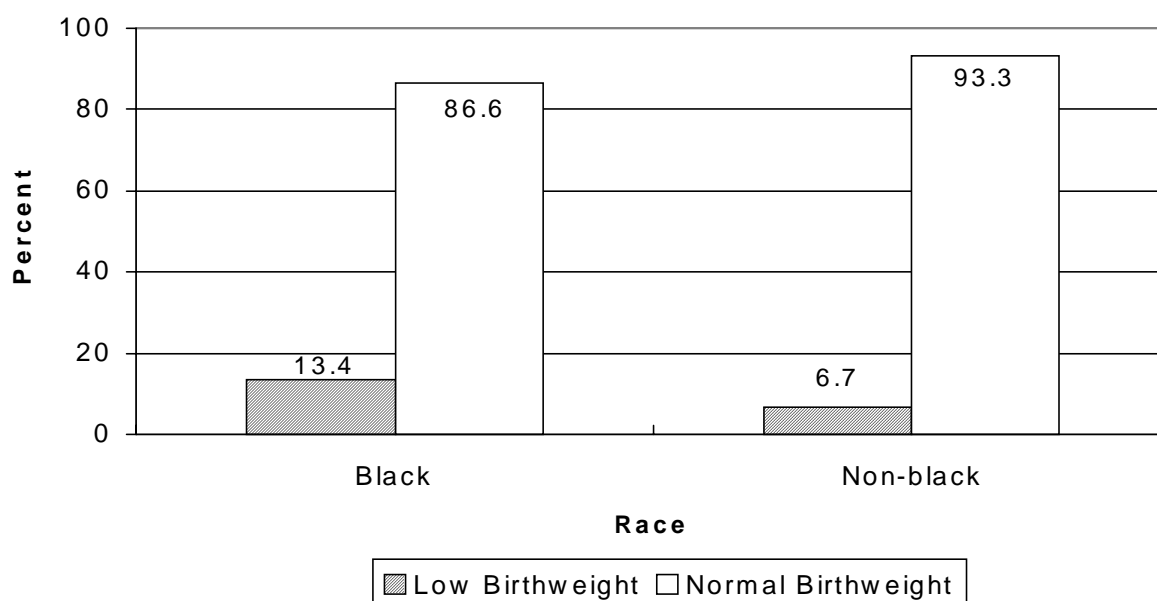
About eight percent (7.95%, 95% CI ± 0.2) of respondents gave birth to infants who had low birthweight (less than 2,500 grams). The likelihood of having a low birthweight infant was related to age, with the highest levels of low birthweight infants among women less than 20 years old and 30 years and older. (Figure 1, Table 2 in Appendix II).

FIGURE 1
Percentage of Low and Normal Birthweight Infants
by Mother's AGE at Delivery
1998 Michigan PRAMS



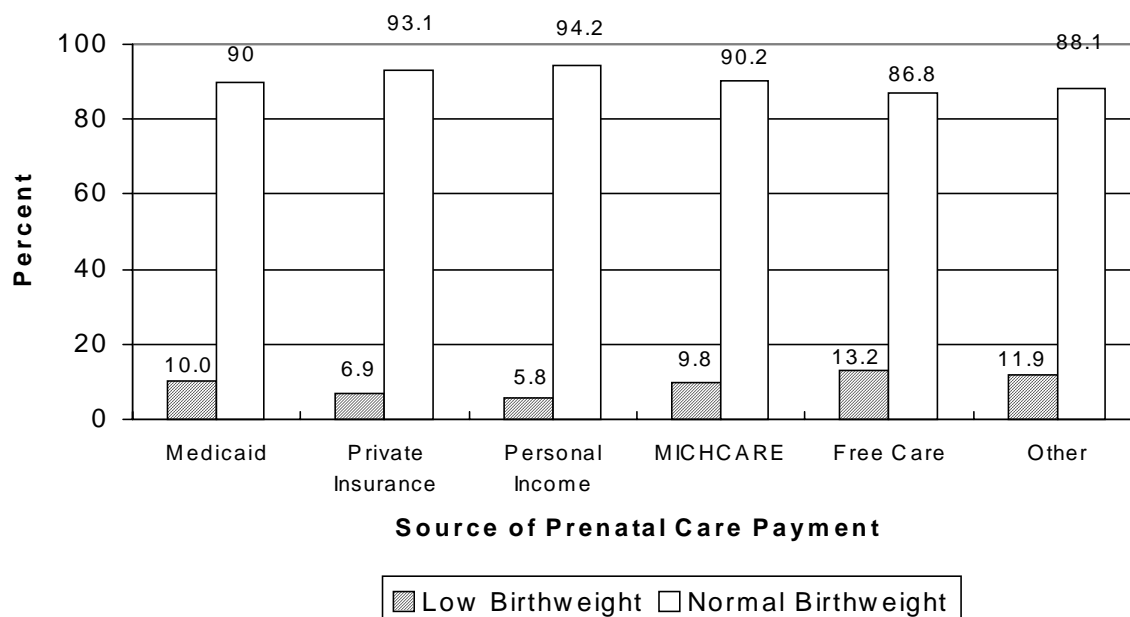
Black mothers were twice as likely to have a low birthweight infant than were non-black mothers (Figure 2, Table 2 in Appendix II).

FIGURE 2
Percentage of Low and Normal Birthweight Infants
by Mother's RACE
1998 Michigan PRAMS



Women who had Medicaid or free care as a source of prenatal care payments were almost twice as likely to have a low birthweight infant compared with women who had personal income as a source of prenatal care payments (Figure 3, Table 11 in Appendix II).

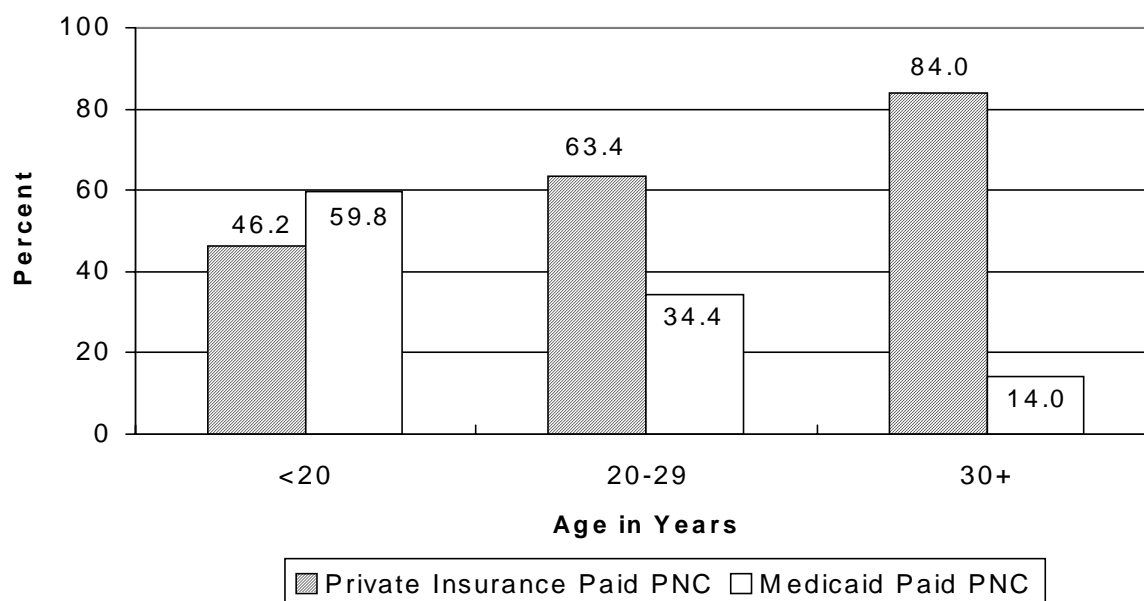
FIGURE 3
Infant's Birthweight by Source of Prenatal Care Payment
1998 Michigan PRAMS



Health Insurance and Medicaid Coverage of Prenatal Care

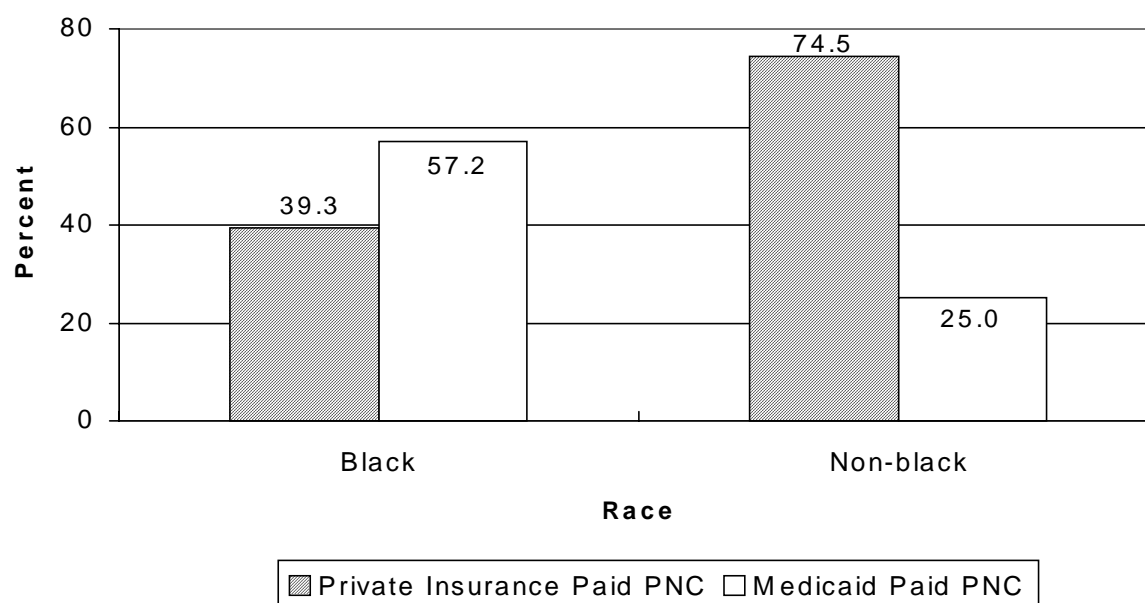
Respondents indicated whether they had private health insurance, Medicaid, personal income, or other sources of payment for prenatal care (PNC). Respondents could indicate more than one source. Over two-thirds (68%, 95% CI ± 3.7) of respondents had private health insurance, and about one-third (31.0%, 95% CI ± 3.7) had Medicaid coverage (Table 9 of Appendix II). Medicaid coverage varied by age, with almost half of teenaged respondents having Medicaid pay for PNC, but only 14.0 percent of women aged 30 or older having Medicaid (Figure 4, Table 10 in Appendix II).

FIGURE 4
Percentage of Respondents Who Had Health Insurance or
Medicaid Coverage for Prenatal Care by Mother's AGE
1998 Michigan PRAMS



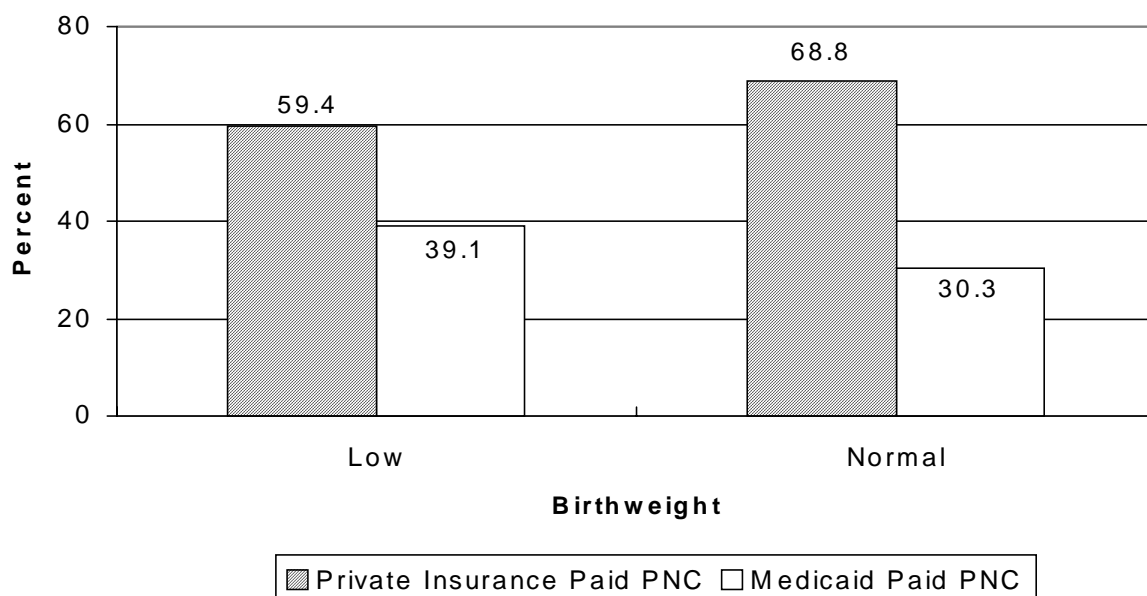
Medicaid coverage for PNC among black respondents was over twice that of non-black respondents (Figure 5, Table 10 of Appendix II).

FIGURE 5
Percentage of Respondents Who Had Health Insurance or Medicaid
Coverage for Prenatal Care by Mother's RACE
1998 Michigan PRAMS



Among women with low birthweight infants, 39.1 percent (95% CI ± 3.9) had Medicaid coverage for PNC (Figure 6, Table 10 in Appendix II). Among women with normal birthweight infants, 30.3 percent (95% CI ± 4.0) had Medicaid.

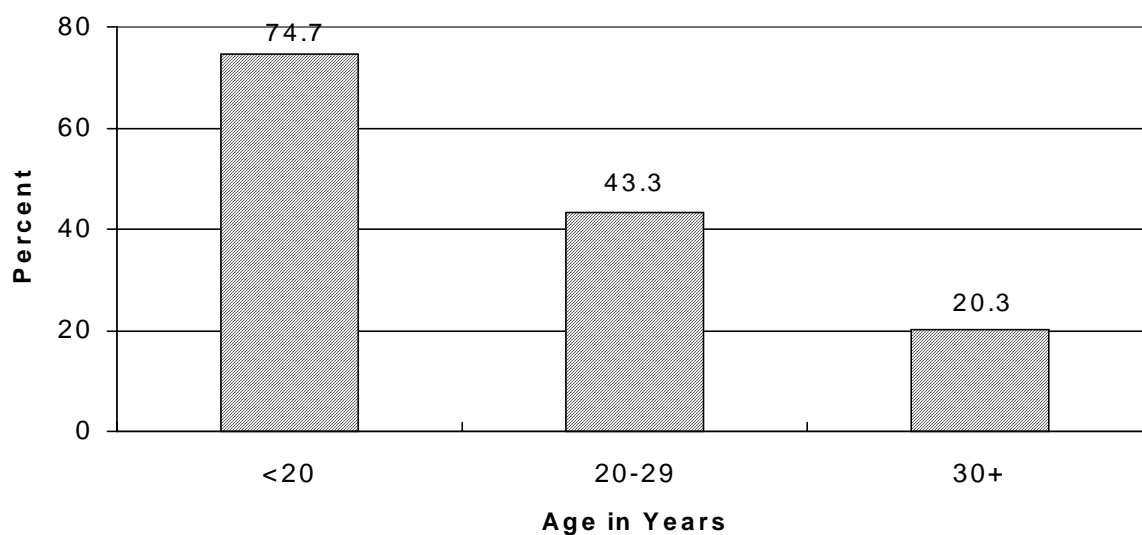
FIGURE 6
Percentage of Respondents Who Had Health Insurance or Medicaid
Coverage for Prenatal Care by Infant's Birthweight
1998 Michigan PRAMS



Mothers Receiving WIC

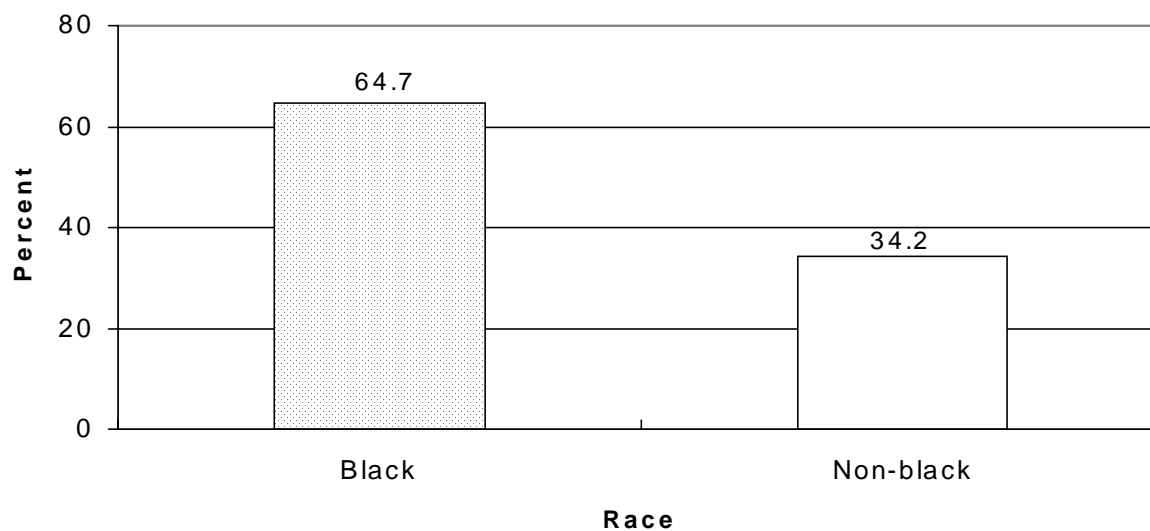
Four in 10 respondents (40.0%, 95% CI ± 3.9) reported that they were receiving assistance from the Women, Infants, and Children program (WIC). This varied by age, however, decreasing with increasing age (Figure 7). Respondents under age 20 were almost four times as likely to be receiving WIC as were women aged 30 and older. (Table 18 in Appendix II).

FIGURE 7
Percentage of Respondents Receiving WIC by AGE
1998 Michigan PRAMS



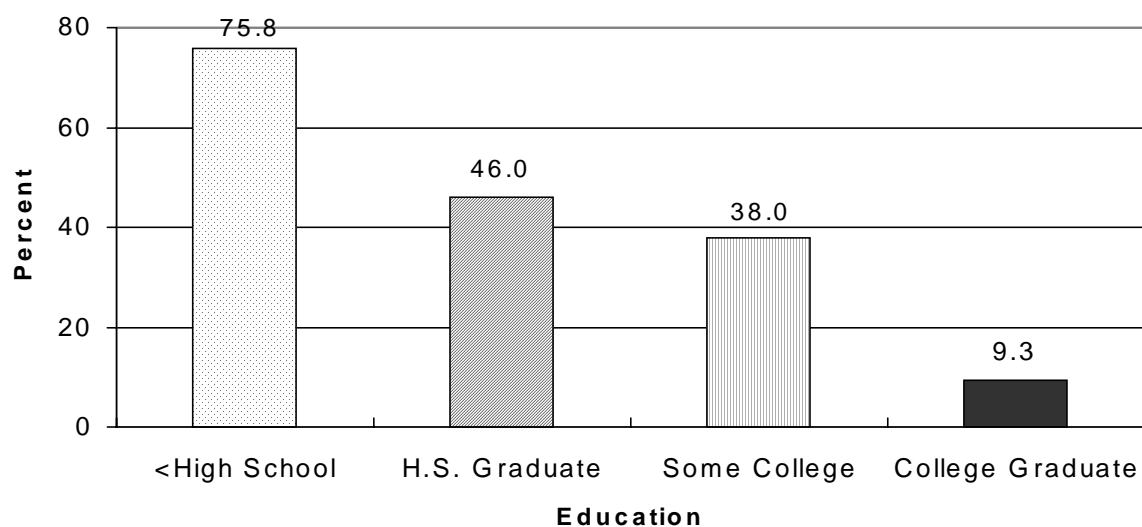
Almost twice as many black respondents reported being WIC participants compared to non-black respondents (Figure 8, Table 18 in Appendix II).

FIGURE 8
Percentage of Respondents Receiving WIC by RACE
1998 Michigan PRAMS



The proportion of respondents participating with WIC declined dramatically with education from 75.8 percent (95% CI ± 9.8) among respondents with less than a high school diploma to 9.3 percent (95% CI ± 4.5) among respondents with a college degree (Figure 9, Table 18 in Appendix II).

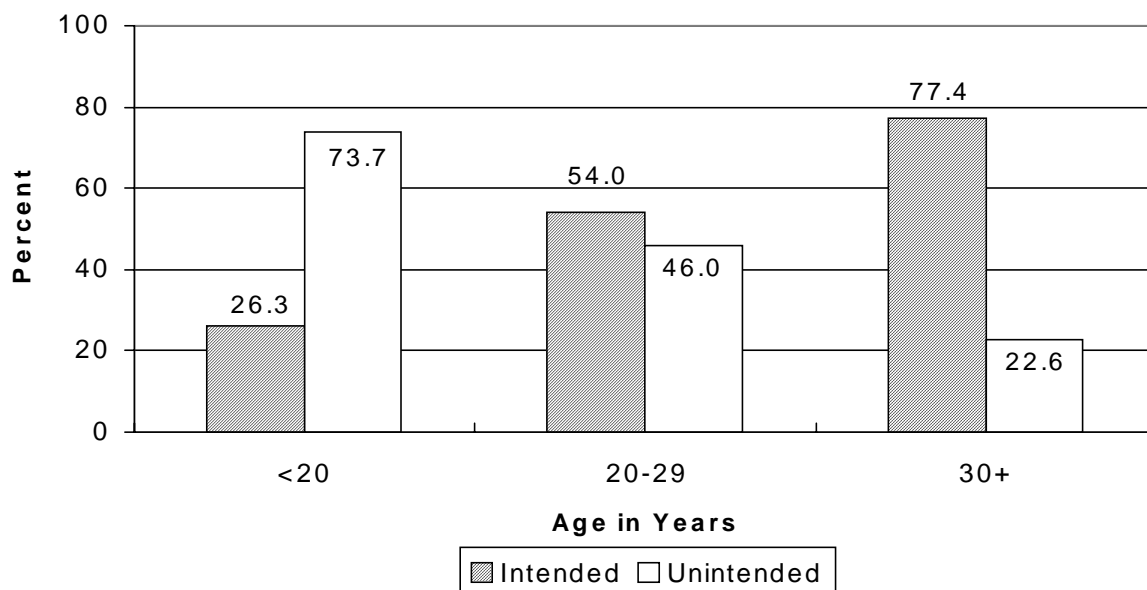
FIGURE 9
Percentage of Respondents Receiving WIC
by Educational Level
1998 Michigan PRAMS



Unintended Pregnancies

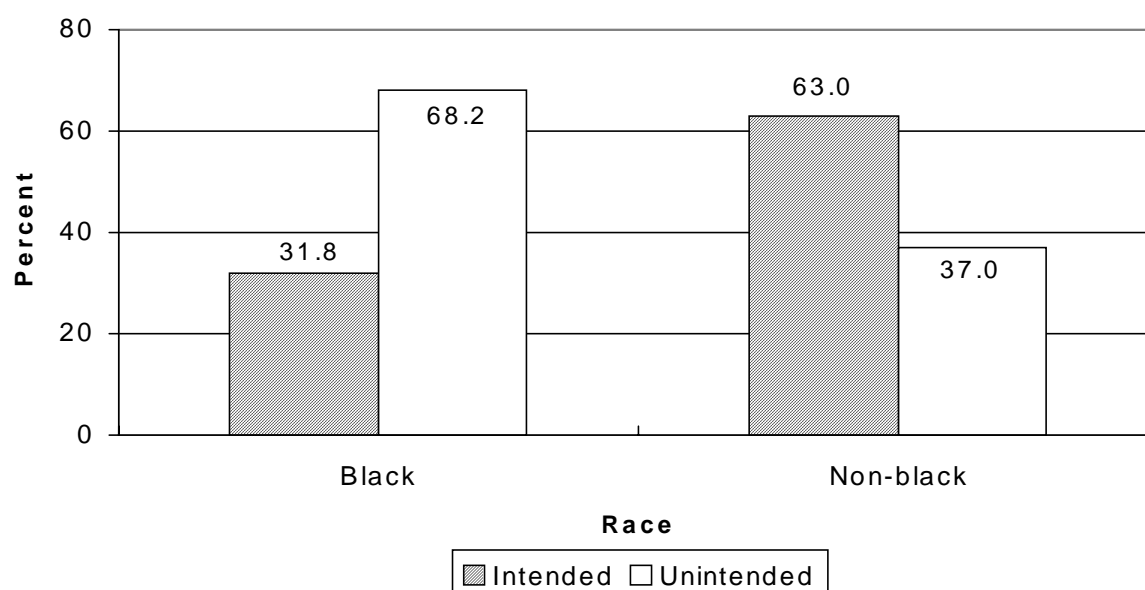
Over 40 percent of live births in Michigan in 1998 resulted from pregnancies that were unintended (41.8%, 95% CI ± 4.3). Intended was defined as becoming pregnant when it was wanted or later than it was wanted. Unintended was defined as becoming pregnant sooner than was wanted or not wanting to become pregnant (See Table 3 and 4 in Appendix II for more information). Age was related to this indicator. Teenaged women were more likely to give birth as a result of an unintended pregnancy (73.7%, 95% CI ± 12.8), compared to women in their 20s (46.0%, 95% CI ± 6.0) and those over age 29 (22.6%, 95% CI ± 5.8) (Figure 10, Table 4 in Appendix II).

FIGURE 10
Percentage of Unintended Live Births by Mother's AGE
1998 Michigan PRAMS



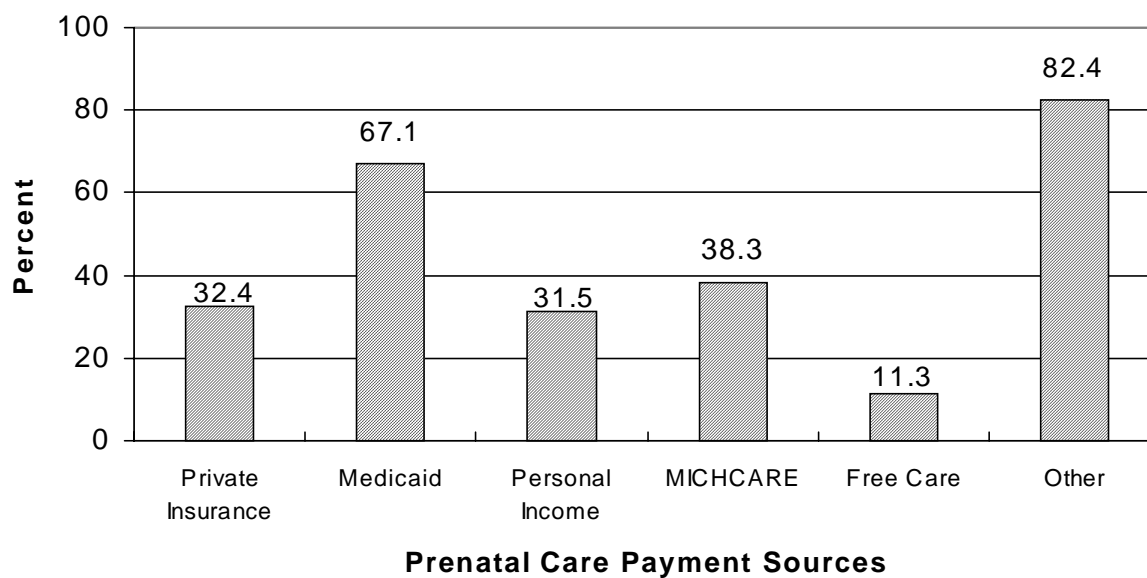
Among black respondents, 68.2 percent of live births were the result of an unintended pregnancy, (68.2%, 95% CI \pm 4.7), which was nearly twice the proportion of unintended pregnancy among non-black respondents (37.0%, 95% CI \pm 5.0). (Figure 11, Table 4 in Appendix II).

FIGURE 11
Percentage of Unintended Live Births by Mother's RACE
1998 Michigan PRAMS



Among women who had Medicaid-paid prenatal care, two-thirds had unintended pregnancies, (66.1%, 95% CI \pm 7.8), which was a large proportion compared to women who had other sources of payment for prenatal care (Figure 12, Table 26 in Appendix II).

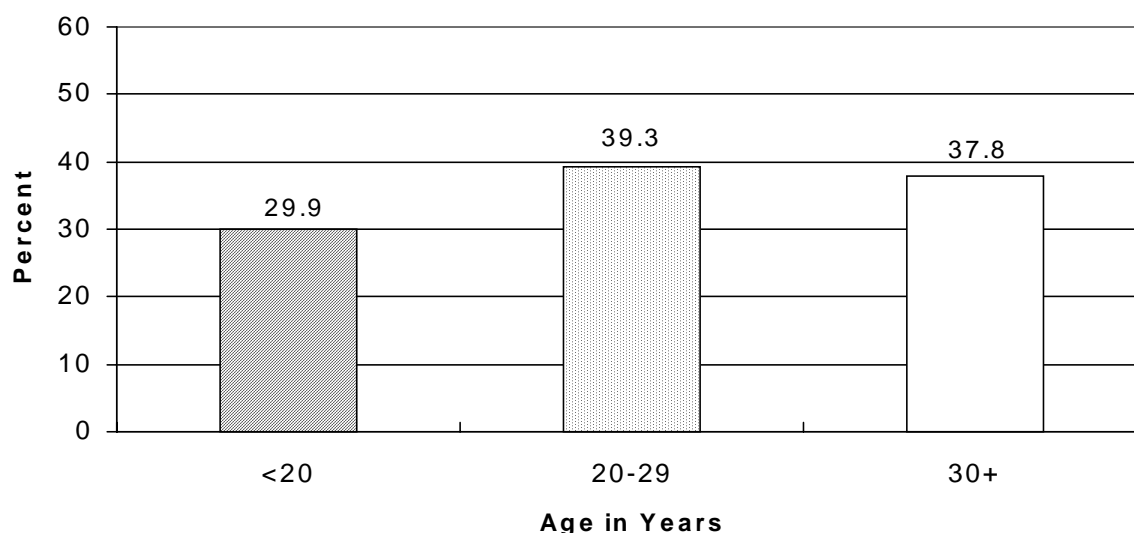
FIGURE 12
Percentage of Unintended Live Births
by Prenatal Care Payment Source
1998 Michigan PRAMS



Birth Control Use Among Women Not Intending Pregnancy

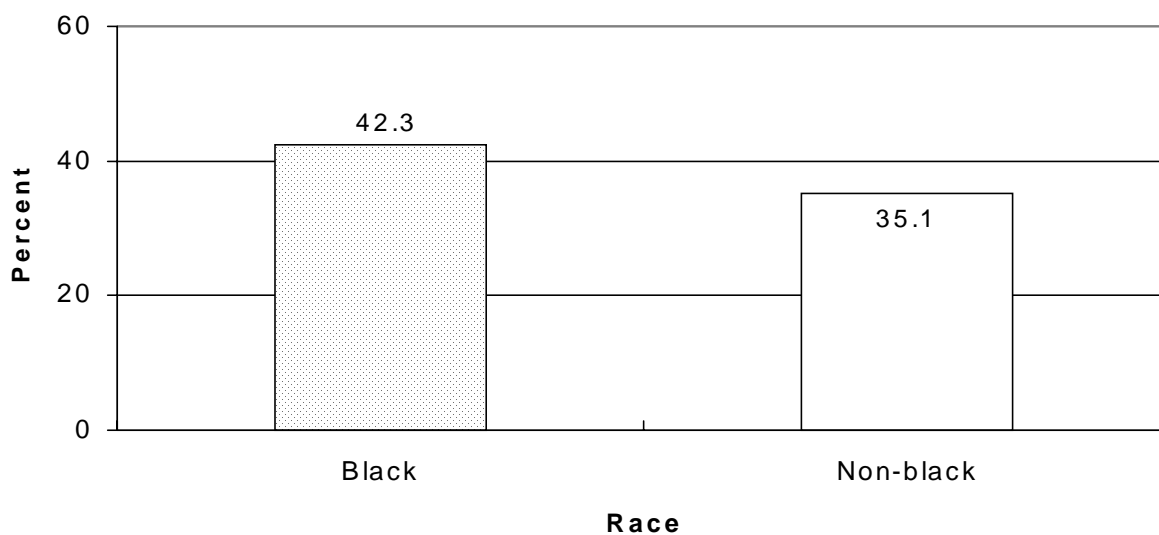
Overall, about one in five respondents (21.5%, 95% CI ± 3.2) (see Table 5A in Appendix II) were using some method of birth control at the time the pregnancy occurred. Among women who were not intending pregnancy, however, 36.9 percent (95% CI ± 6.4) were using birth control (See Table 5 in Appendix II). Younger respondents who did not intend pregnancy were less likely to report the use of birth control at the time pregnancy occurred compared to older respondents (Figure 13, Table 5 in Appendix II).

FIGURE 13
Use of Birth Control at the Time Pregnancy Occurred Among Mothers
Who Did Not Intend to Become Pregnant by Mother's AGE
1998 Michigan PRAMS



There was little difference in the use of birth control by race among women who had not intended pregnancy (Figure 14, Table 5 in Appendix II)

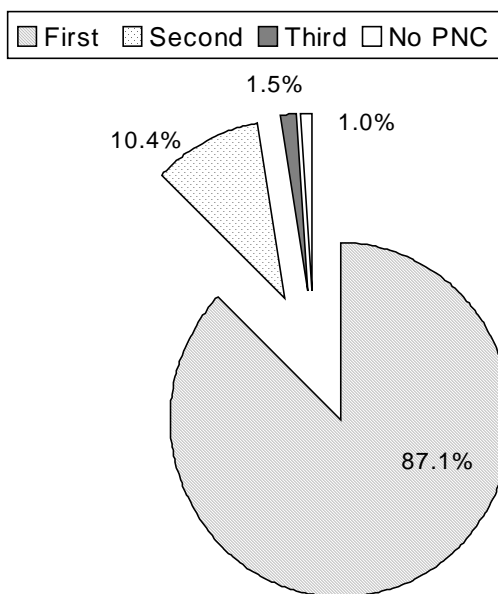
FIGURE 14
Use of Birth Control at the Time Pregnancy Occurred Among Mothers
Who Did Not Intend to Become Pregnant by Mother's RACE
1998 Michigan PRAMS



Prenatal Care

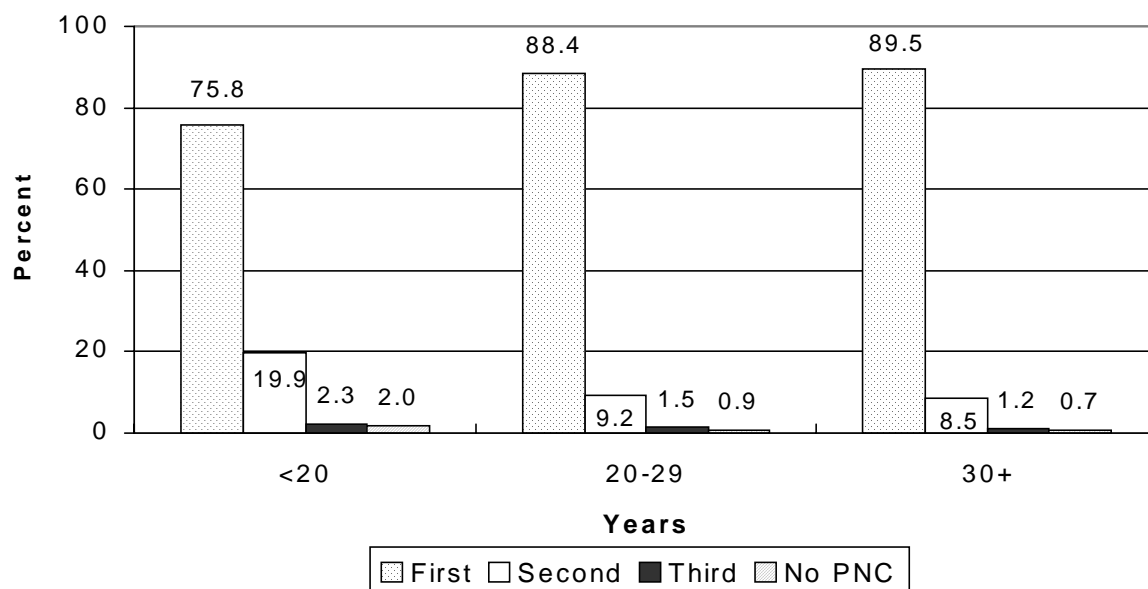
Prenatal care was initiated during the first trimester by 87.1 percent (95% CI ± 2.4) of the respondents in 1998 Michigan PRAMS (Figure 15, Table 6 in Appendix II).

FIGURE 15
Trimester When Prenatal Care Was Started
1998 Michigan PRAMS



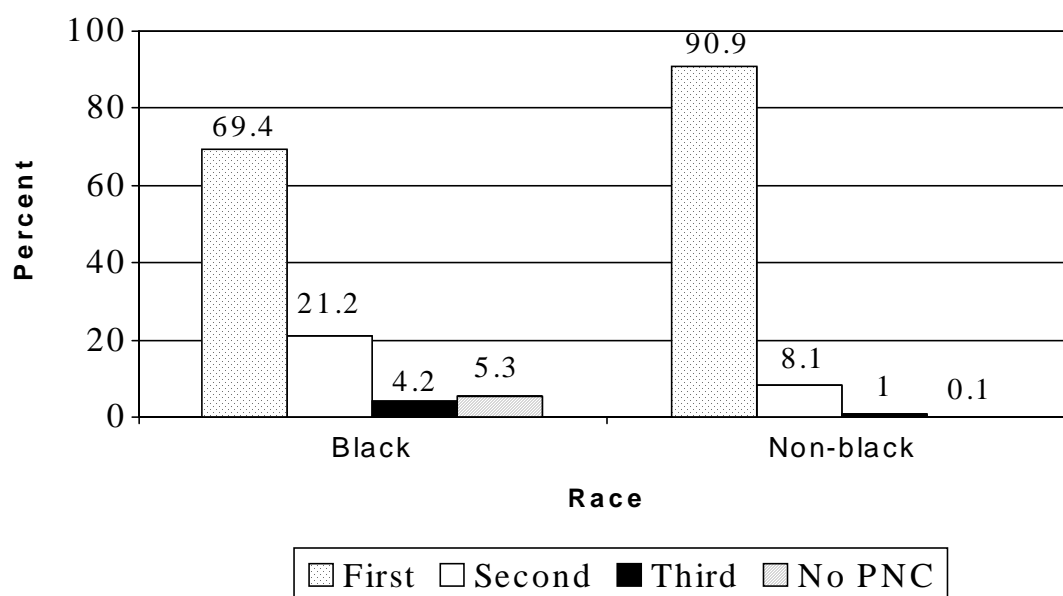
Respondents aged 20 or older were more likely to initiate prenatal care during the first trimester compared to teenage respondents (Figure 16, Table 6 in Appendix II).

FIGURE 16
Trimester When Prenatal Care Started by Mother's AGE
1998 Michigan PRAMS



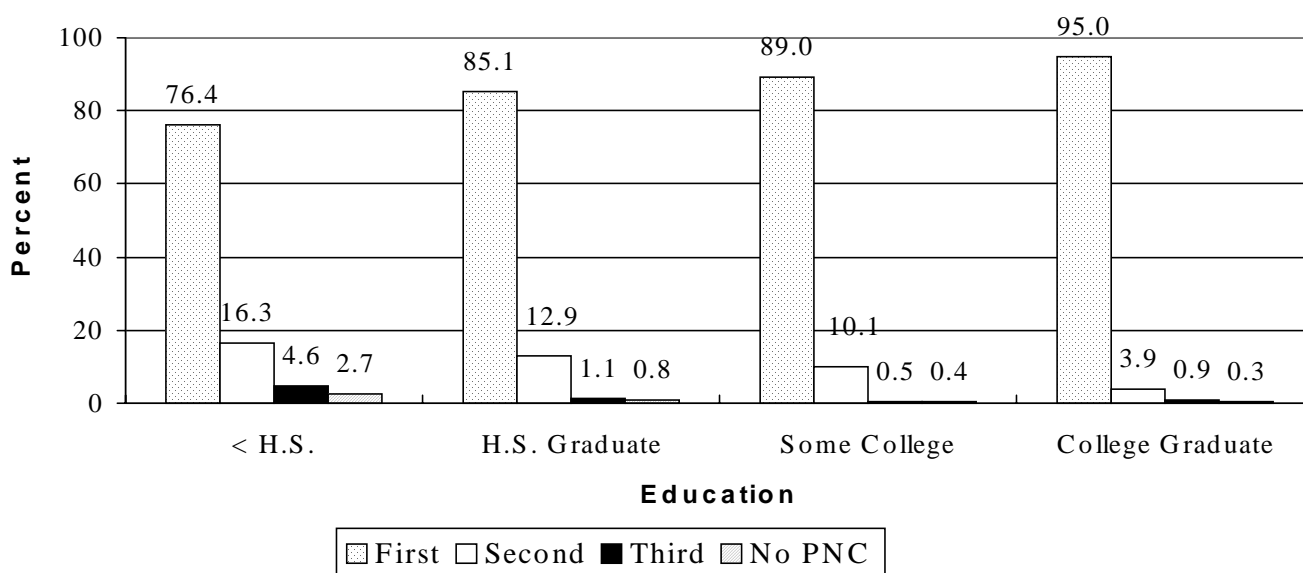
Non-black respondents were more likely to initiate prenatal care during the first trimester compared to black respondents (Figure 17, Table 6 in Appendix II).

FIGURE 17
Trimester When Prenatal Care Started by Mother's RACE
1998 Michigan PRAMS



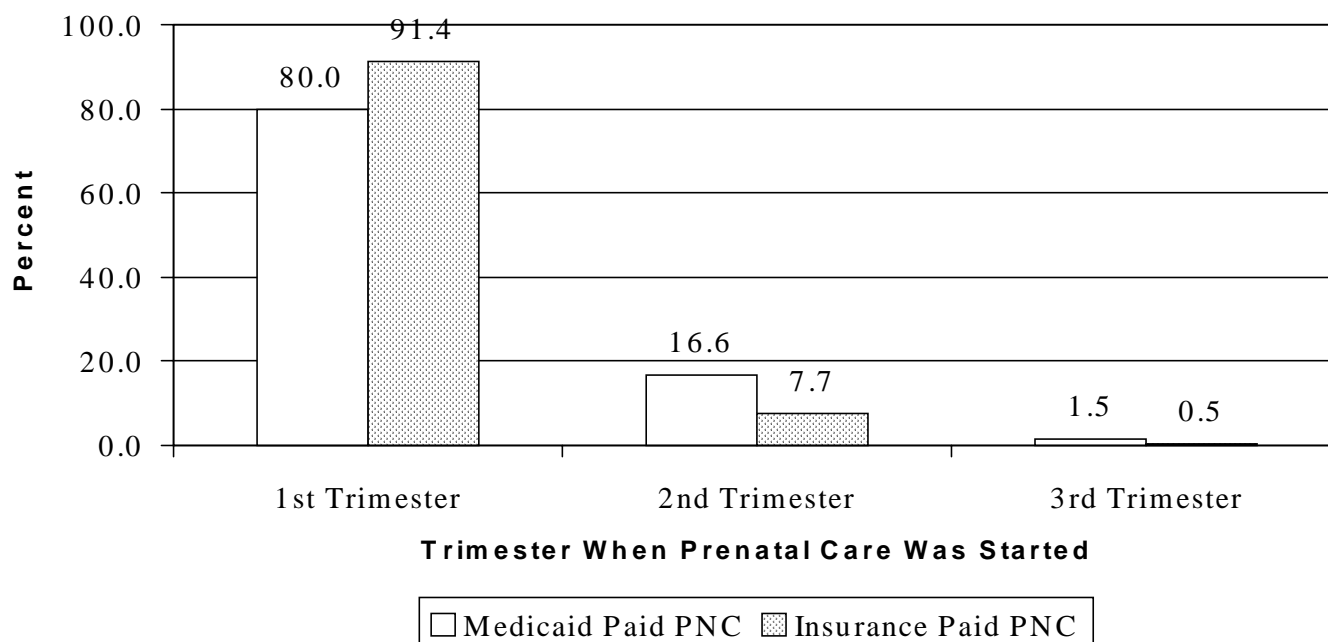
Education level was also related to when prenatal care was started. Respondents who had higher levels of education were more likely to report initiating prenatal care in the first trimester, compared to respondents with lower levels of education (Figure 18, Table 6 in Appendix II).

FIGURE 18
Trimester When Prenatal Care Started by Mother's Education Level
1998 Michigan PRAMS



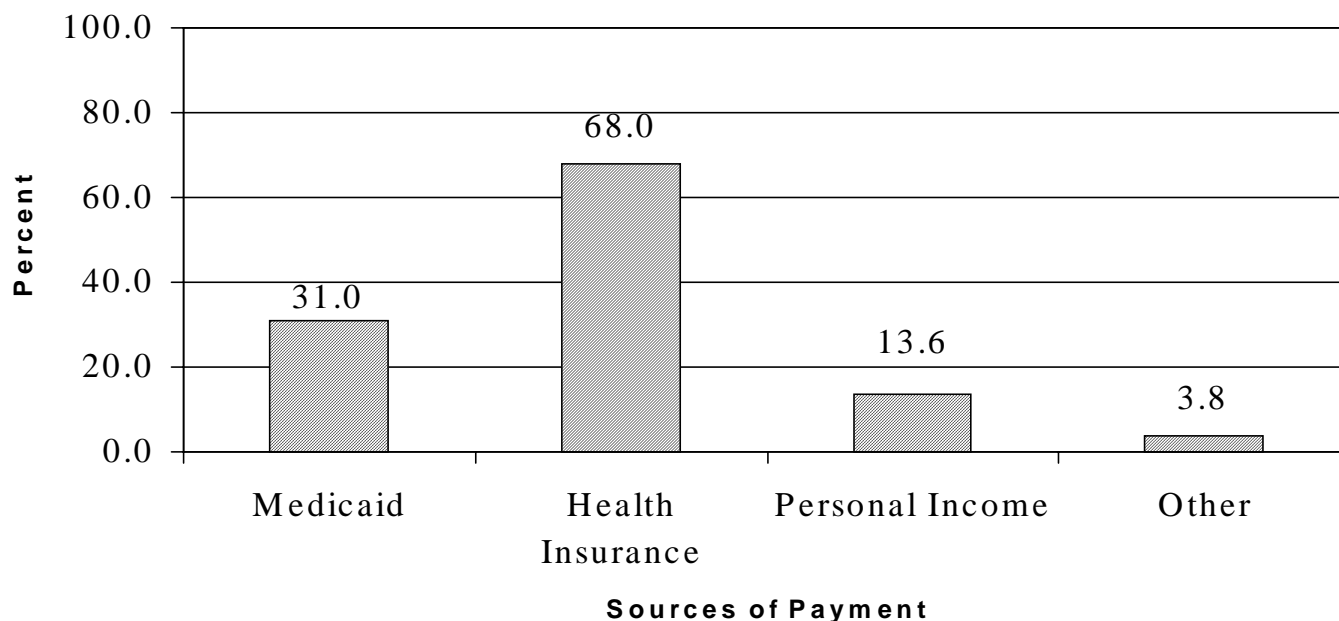
Among respondents who had Medicaid-paid PNC, 80.0 percent (95% CI \pm 4.8) started PNC in the first trimester (Figure 19). Among respondents who had private insurance pay for PNC, 91.4 percent (95% CI \pm 2.7) began PNC in the first trimester. Respondents who had Medicaid-paid PNC were twice as likely to have PNC initiated in the second trimester compared to respondents with private insurance (Figure 19, Table 6A in Appendix II).

FIGURE 19
Trimester When Prenatal Care Started by Source of
Prenatal Care Payments
1998 Michigan PRAMS



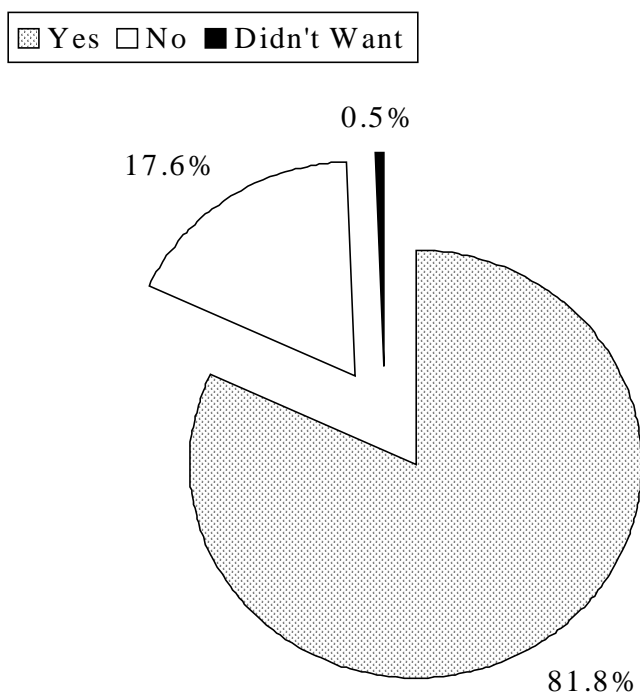
Respondents were asked the sources of payment for their prenatal care. Some indicated more than one source of care payment, thus the percents add up to more than 100 percent. About two-thirds of respondents indicated that private health insurance was a source of payment for the costs of prenatal care, and 13.6 percent indicated that personal income was a source of payment for the costs of prenatal care (Figure 20, Table 9 in Appendix II).

FIGURE 20
Distribution of Sources of Payment for Prenatal Care (%)
1998 Michigan PRAMS



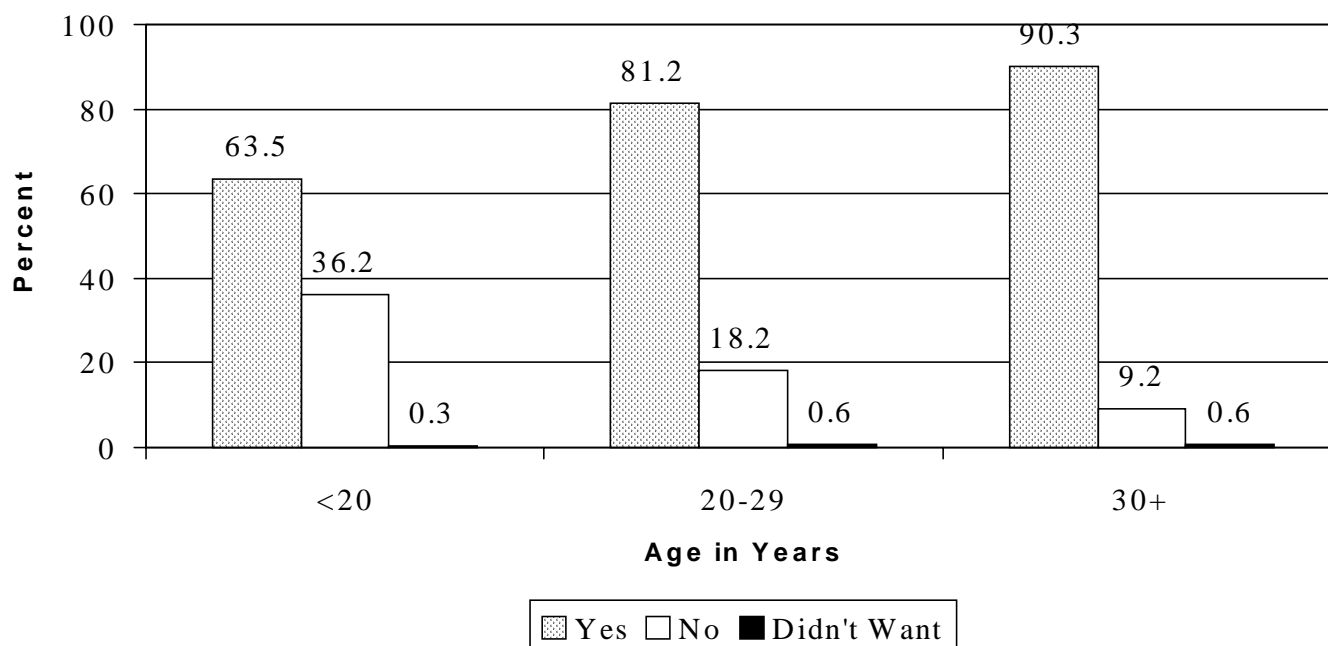
Respondents were asked if they had received the first prenatal care visit as early as they had desired. About 80 percent (81.8%, 95% CI ± 3.1) indicated that they had received the first prenatal care visit as early as they had desired (Figure 21, Table 7 in Appendix II).

FIGURE 21
Percentage of Respondents Who Started Prenatal Care
as Early as They Desired
1998 Michigan PRAMS



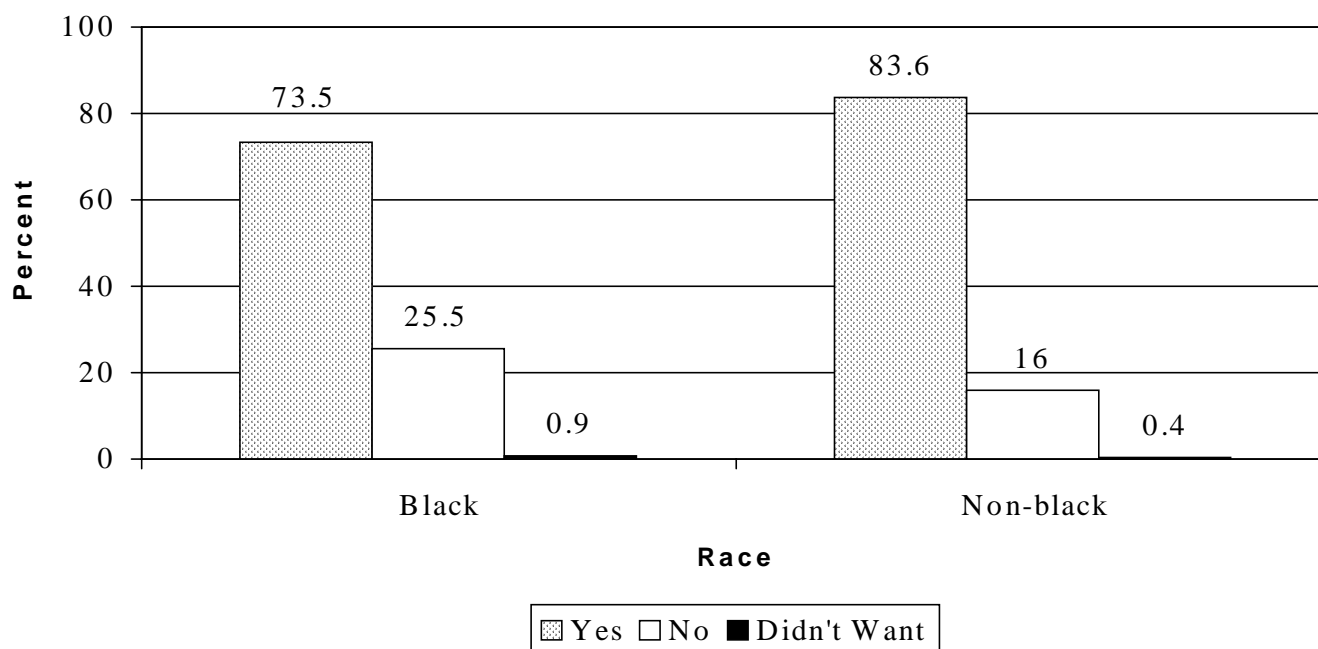
Almost two-thirds (63.5%, 95% CI \pm 11.6) of teenaged respondents affirmed this (receiving prenatal care as early as desired) compared to nearly all of older respondents (Figure 22, Table 7 in Appendix II).

FIGURE 22
Percentage of Respondents Who Started Prenatal Care
as Early as They Desired by Mother's AGE
1998 Michigan PRAMS



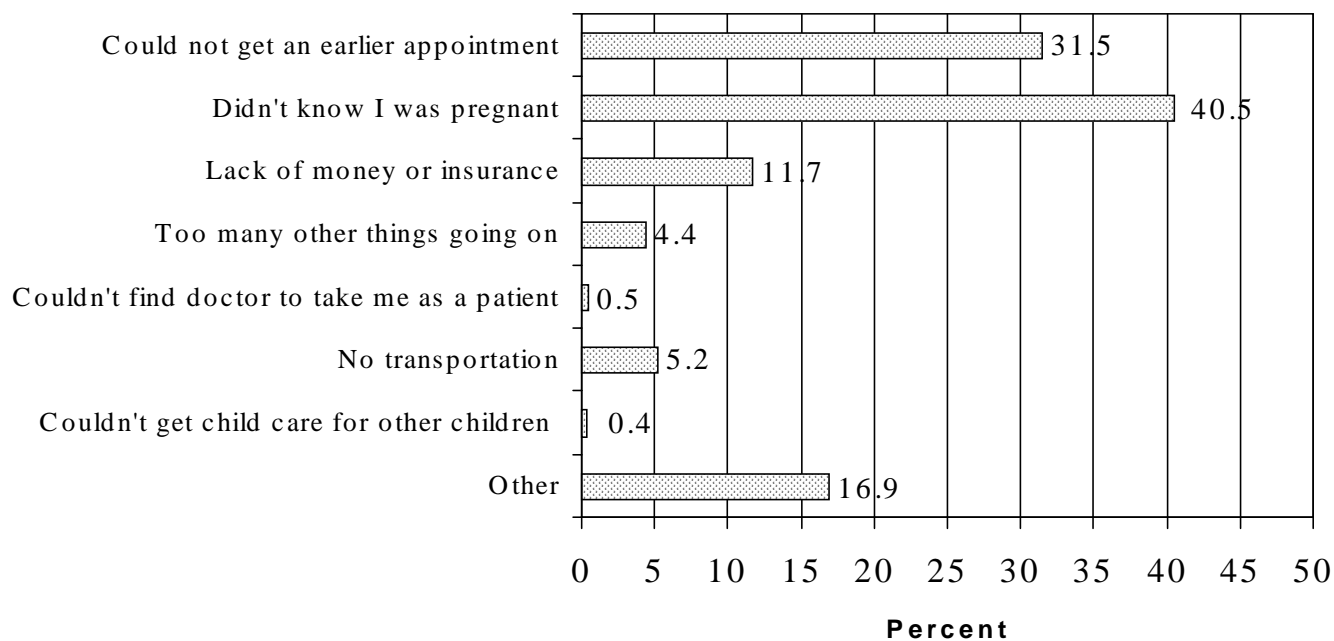
Non-black respondents (83.6%, 95% CI \pm 3.7) were more likely to affirm that they had received the first prenatal care visit as early as they had desired compared to black respondents (73.5%, 95% CI \pm 3.9) (Figure 23, Table 7 in Appendix II).

FIGURE 23
Percentage of Respondents Who Started Prenatal Care
as Early as They Desired by Mother's RACE
1998 Michigan PRAMS



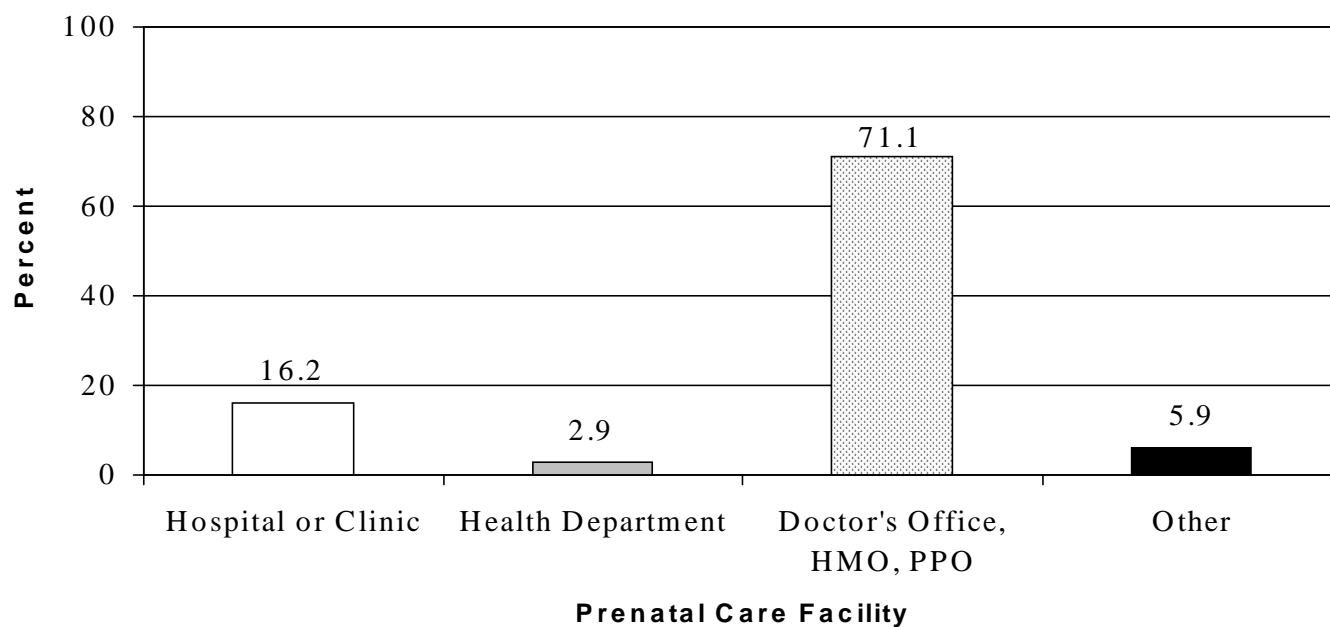
Among those who did not receive prenatal care as early as desired, nearly one-third indicated that they had difficulty getting an appointment, and 40 percent (40.5%, 95% CI \pm 9.3) indicated that they had not realized that they were pregnant (Figure 24, Table 8 in Appendix II).

FIGURE 24
Reasons for Not Starting Prenatal Care as Early as Desired (%)
1998 Michigan PRAMS



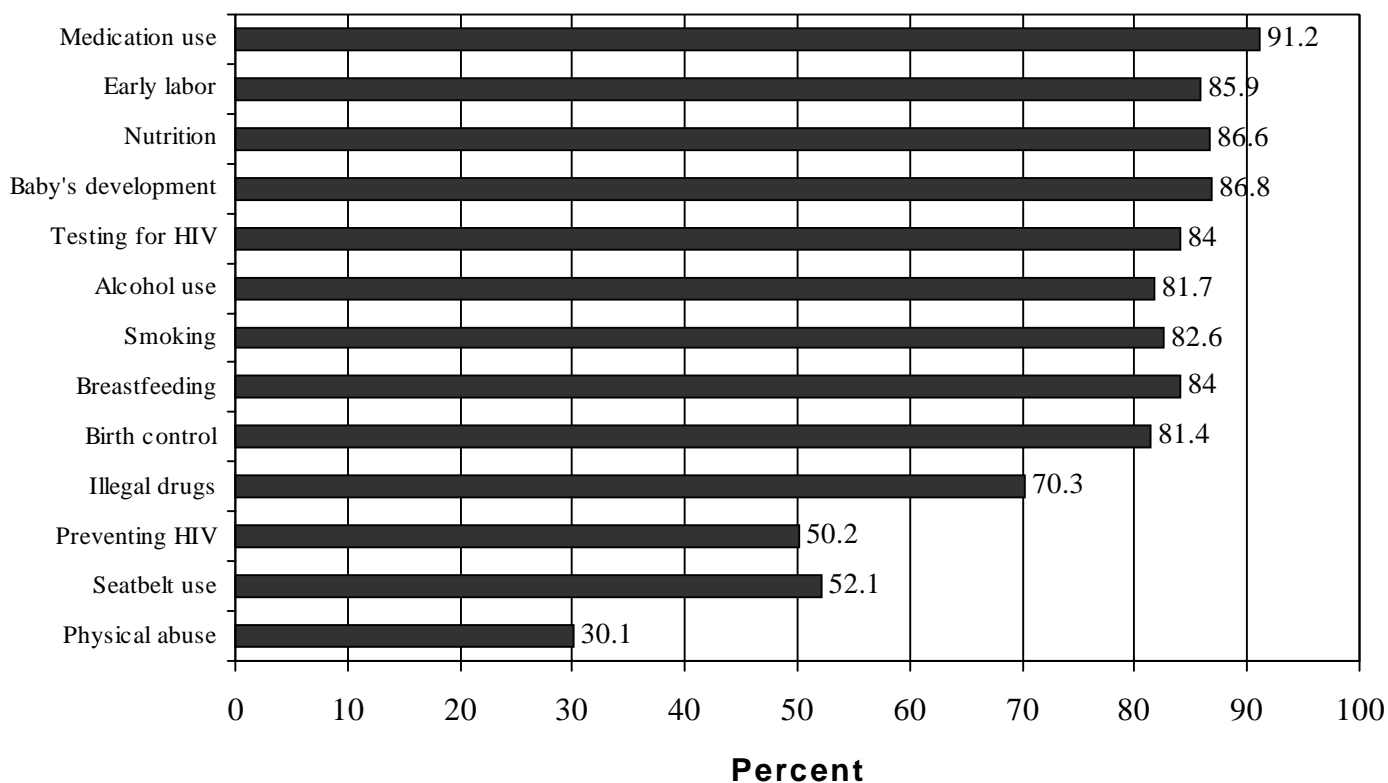
Most of the prenatal care services were delivered at a physician's office or an HMO or PPO clinic (Figure 25, Table 12 in Appendix II).

FIGURE 25
Distribution of Facilities Where Prenatal Care Was Received (%)
1998 Michigan PRAMS



Respondents indicated whether on any of their prenatal care visits a doctor, nurse or other health care worker had talked with them about specific topics. Nearly all respondents (91.2 percent) reported that a health care provider had discussed medication use during a prenatal care visit, but less than one-third (30.1 percent) reported that a health care provider had discussed physical abuse of women by their husbands or partners (Figure 26, Table 13 in Appendix II).

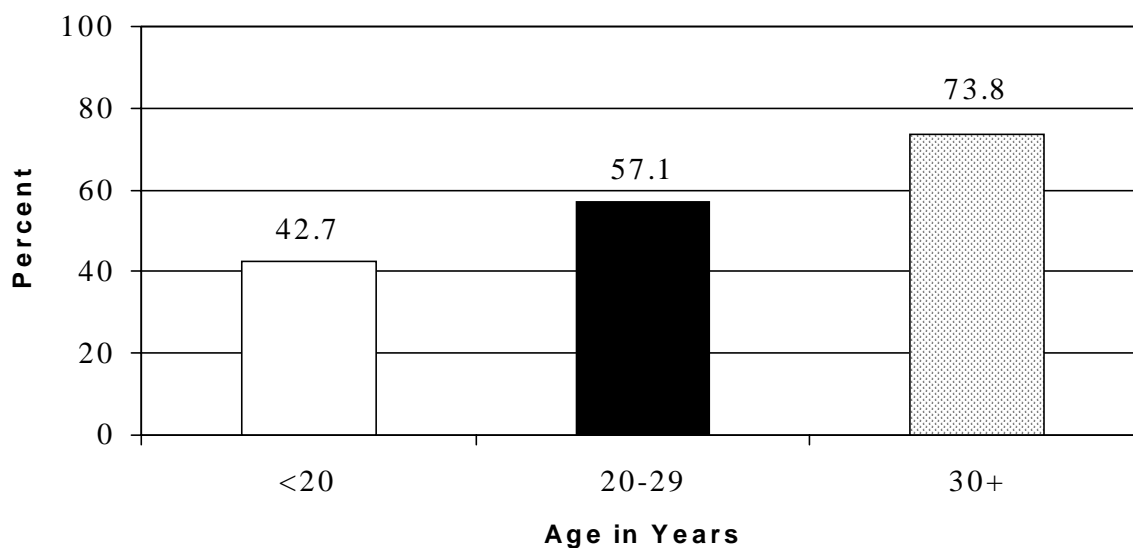
FIGURE 26
Topics Addressed by Health Care Professionals During Prenatal Care Visits (%)
1998 Michigan PRAMS



Breastfeeding

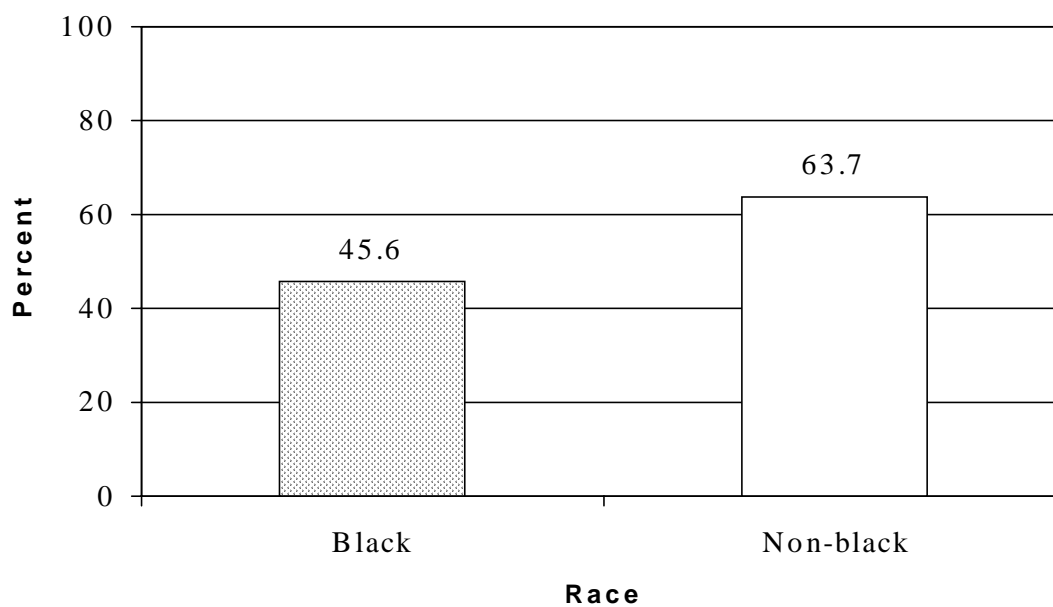
Breastfeeding was defined as a mother having breastfed her newborn for any length of time, including less than one week. Overall, 60.8 percent (95% CI ± 4.2) of respondents breastfed their newborns. The likelihood of breastfeeding tended to increase with age (Figure 27, Table 15 in Appendix II).

FIGURE 27
Percentages of Mothers Who Ever Breastfed by Mother's AGE
1998 Michigan PRAMS



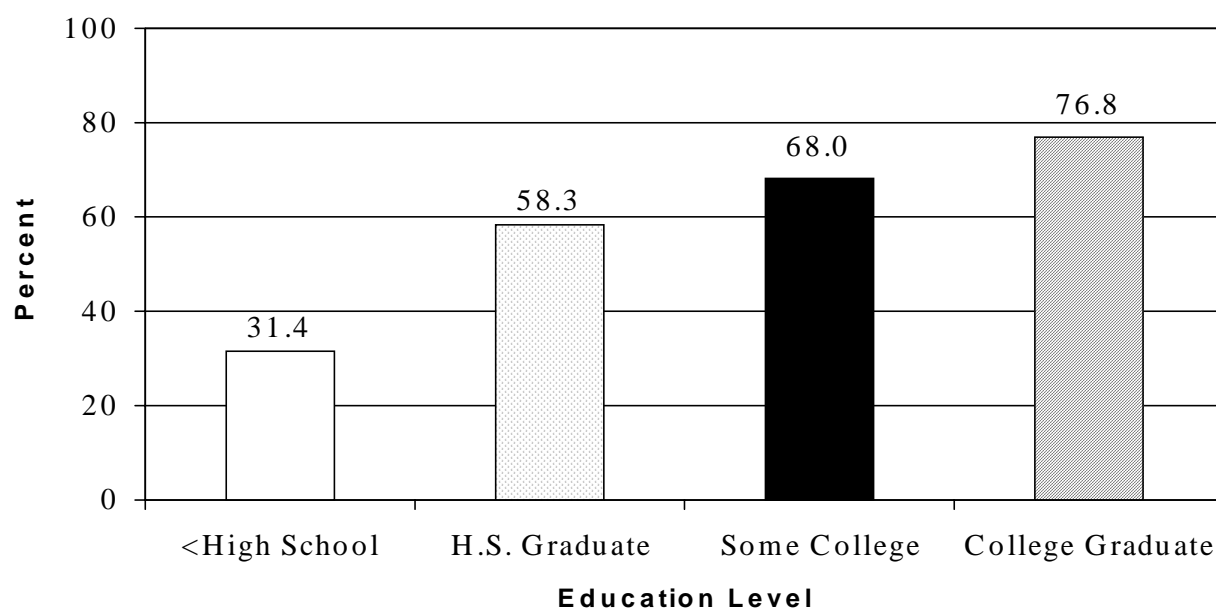
The proportion of non-black respondents who indicated that they breastfed their newborns was much higher than for black respondents (Figure 28, Table 15 in Appendix II).

FIGURE 28
Percentages of Mothers Who Ever Breastfed by Mother's RACE
1998 Michigan PRAMS



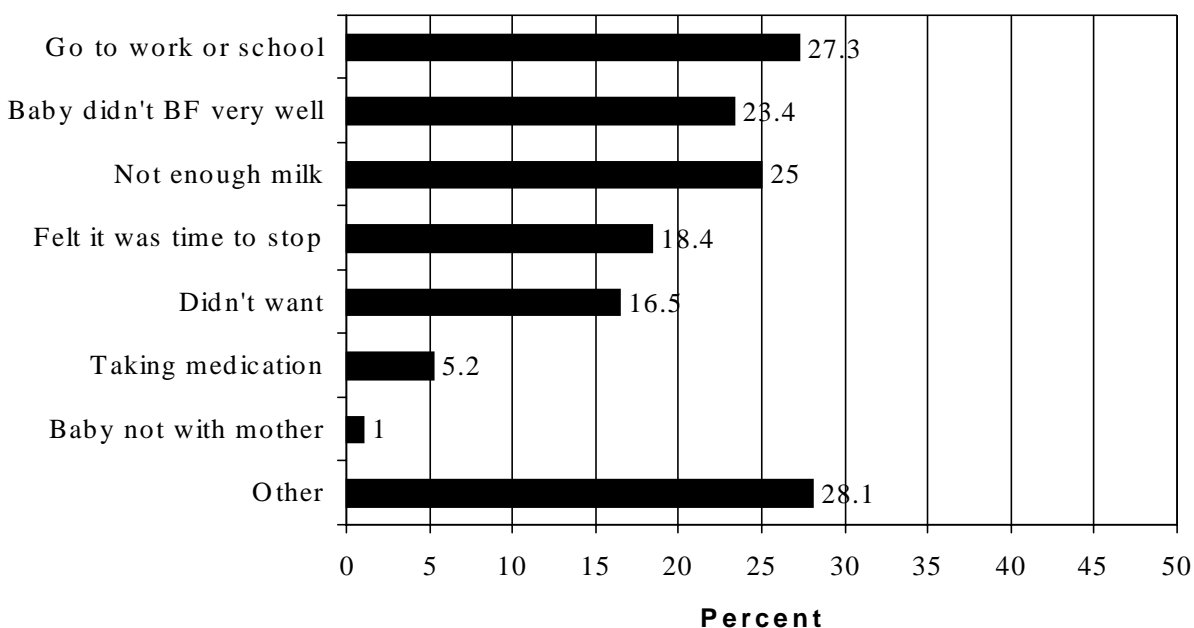
The proportion of respondents who indicated that they breastfed their newborns also increased with the mother's education level (Figure 29, Table 15 in Appendix II).

FIGURE 29
Percentages of Mothers Who Ever Breastfed by Mother's Education Level
1998 Michigan PRAMS



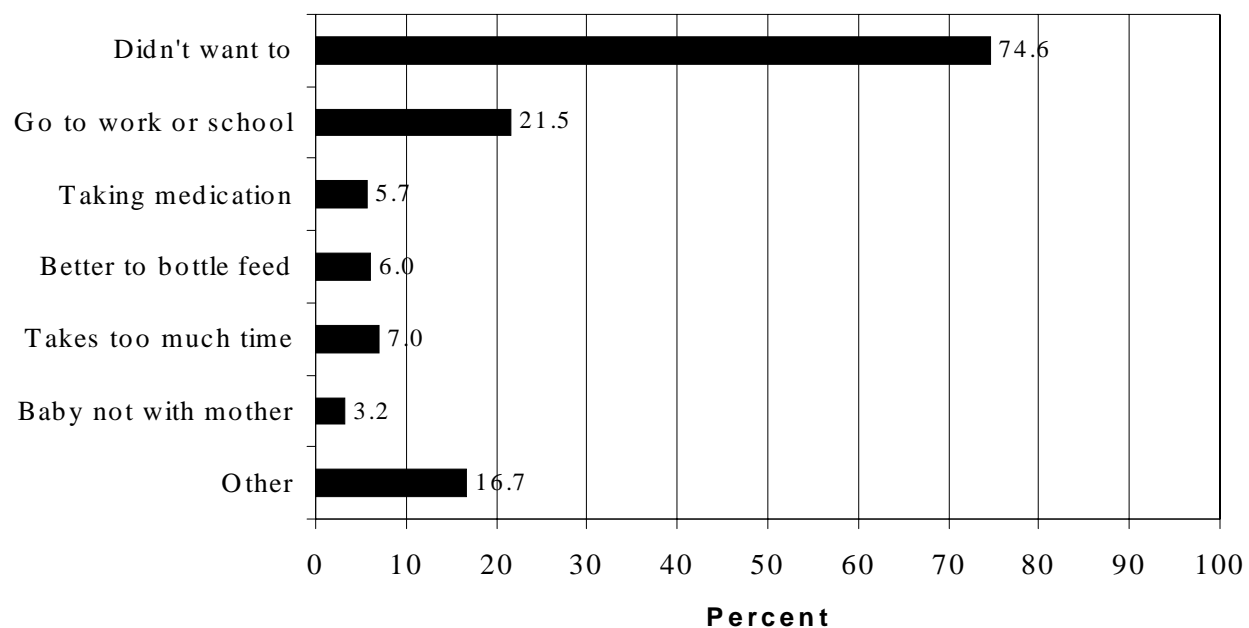
Among respondents who had breastfed their newborns and had stopped breastfeeding at the time of the survey, the top three reasons for stopping breastfeeding were: the mother had to go to work or school (27.3 percent); the baby didn't breastfeed very well (23.4 percent); and the mother did not have enough milk (25.0 percent) (Figure 30, Table 16 in Appendix II).

FIGURE 30
Reasons for Stopping Breastfeeding (%)
1998 Michigan PRAMS



Among respondents who did not breastfeed their newborn at any time, 74.6 percent reported that they did not want to breastfeed (Figure 31, Table 17 in Appendix II).

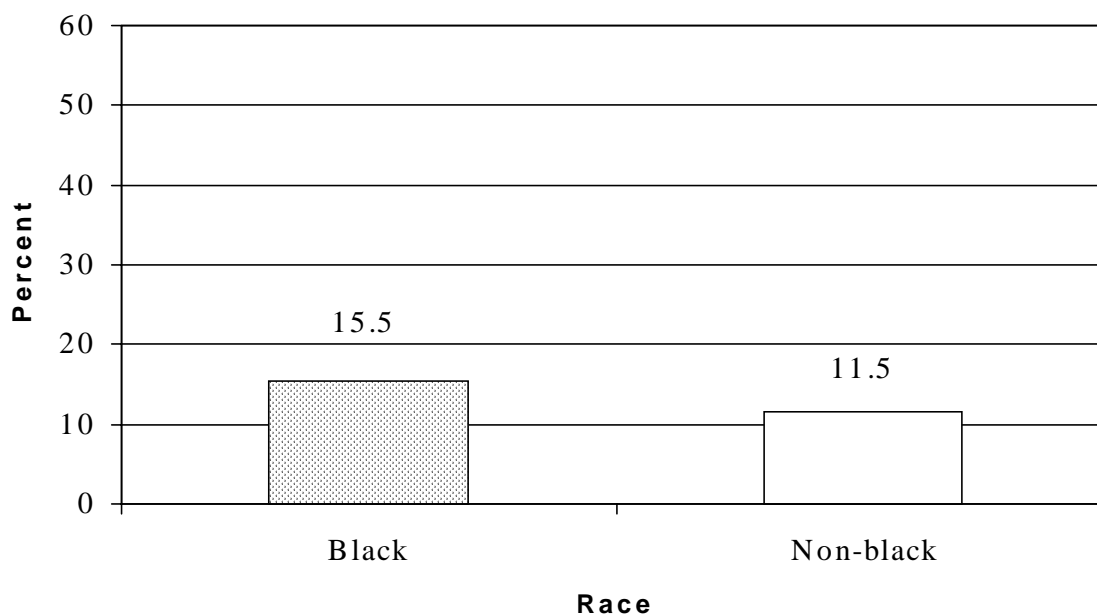
FIGURE 31
Reasons for Not Breastfeeding (%)
1998 Michigan PRAMS



Infants in Intensive Care

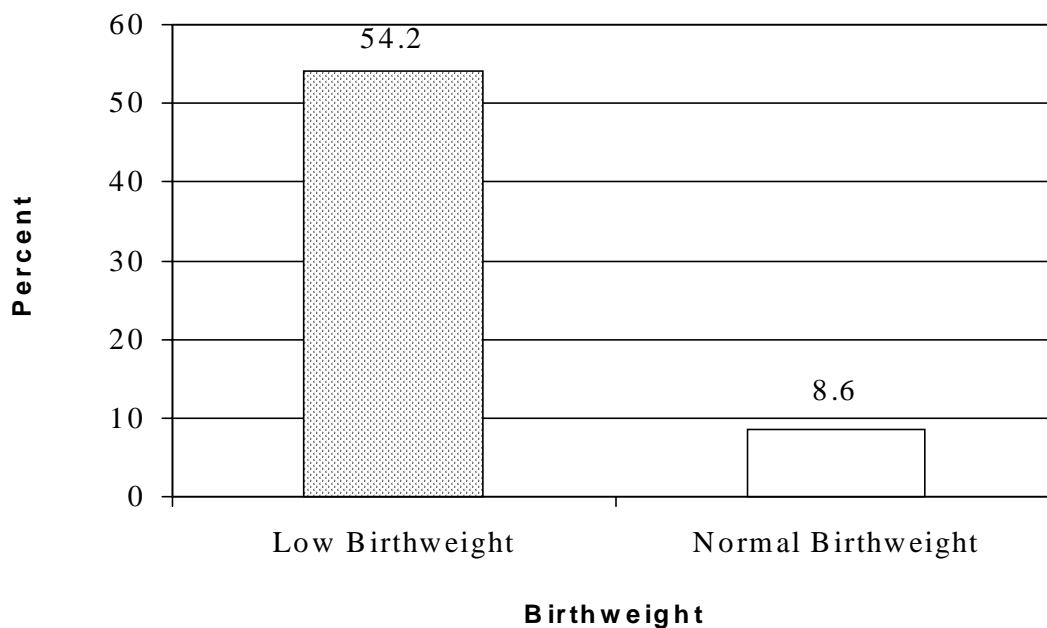
Nearly one in 10 (12.1%, 95% CI ± 2.4) respondents indicated that their infant was placed in an intensive care unit following delivery. Infants born to black respondents (15.5%, 95% CI ± 2.9) were slightly more likely to be placed in an intensive care unit compared to infants born to non-black respondents (11.5%, 95% CI ± 2.7) (Figure 32, Table 21 in Appendix II). This difference, however, was not statistically significant.

FIGURE 32
Percentage of Infants Placed in Intensive Care Unit Following Delivery
By Mother's RACE
1998 Michigan PRAMS



Among normal birthweight infants, 8.6 percent (95% CI \pm 2.5) were placed in an intensive care unit following delivery and 54.2 percent (95% CI \pm 4.3) of low birthweight infants were placed in an intensive care unit following delivery. (Figure 33, Table 21 in Appendix II).

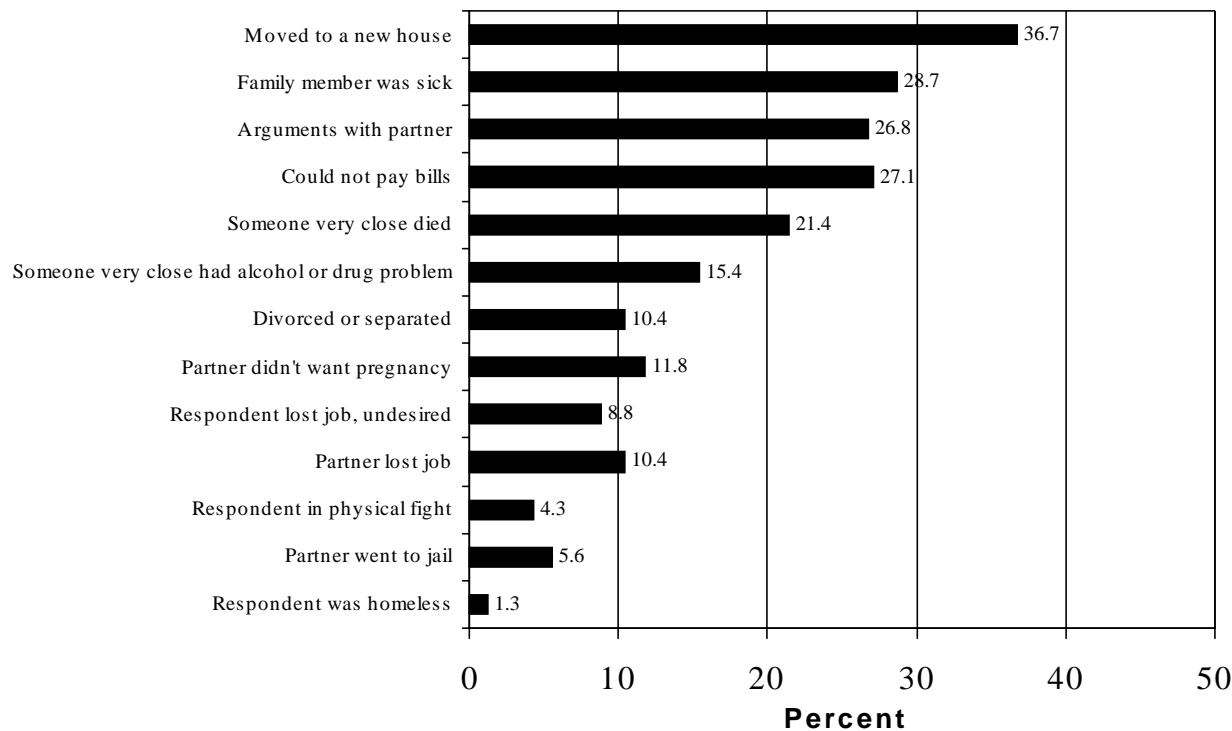
FIGURE 33
Percentage of Infants Placed in Intensive Care Unit Following Delivery
By Infant's Birthweight
1998 Michigan PRAMS



Stressors in the Year Prior to Delivery

Respondents were asked to select the stressors (from a list of 13) that they had experienced during the year prior to delivery. Three-quarters of the respondents (75.8%, 95% CI ± 3.5) (See Table 22A in Appendix II) experienced at least one of the stressors listed, and 24.3 percent (95% CI ± 3.5) selected four or more stressors (See Table 22 in Appendix II). The stressors most commonly reported by respondents included moving to a new residence, having had a sick family member, and arguing with one's partner (Figure 34, Table 23 in Appendix II).

FIGURE 34
Types of Stressors Respondents Encountered
During the Year Prior to Delivery (%)
1998 Michigan PRAMS

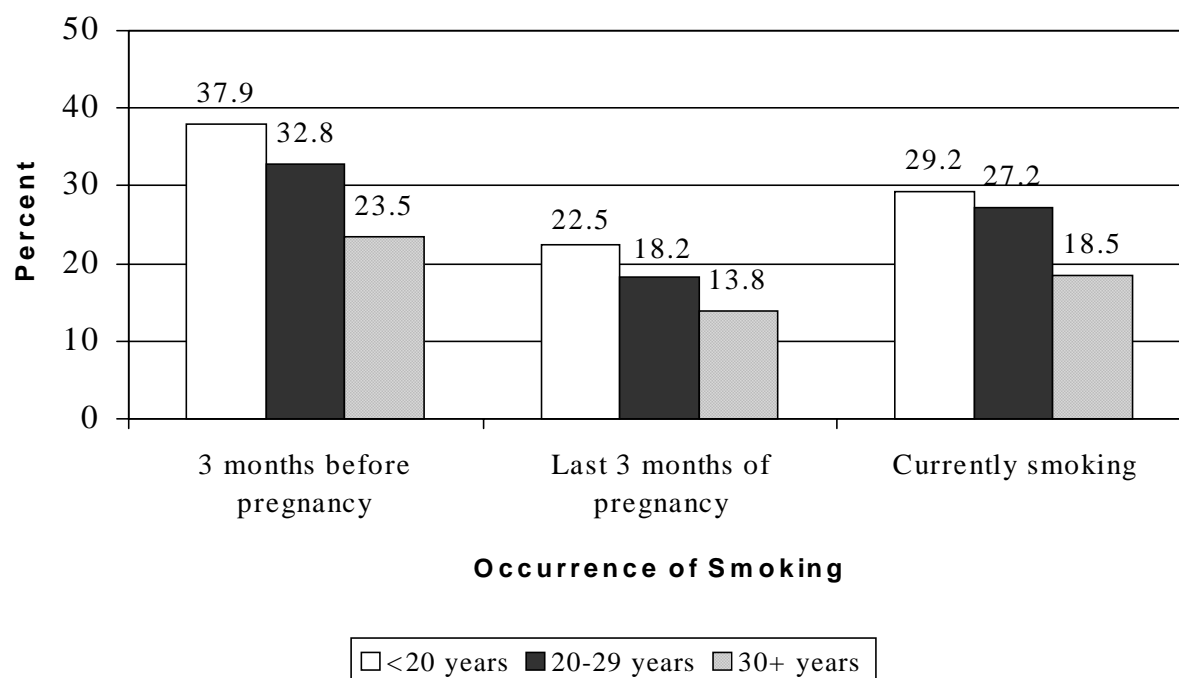


Cigarette Smoking

Respondents were asked whether they smoked cigarettes during the three-month period before they became pregnant, during the last three months of pregnancy, and during the three-month period immediately following delivery. Overall, 30.3 percent (95% CI ± 3.9) of respondents smoked during the three-month period preceding pregnancy, 17.3 percent (95% CI ± 3.2) smoked during the last three months of pregnancy, and 24.5 percent (95% CI ± 3.7) smoked during the three month period following delivery (see Table 24 in Appendix II).

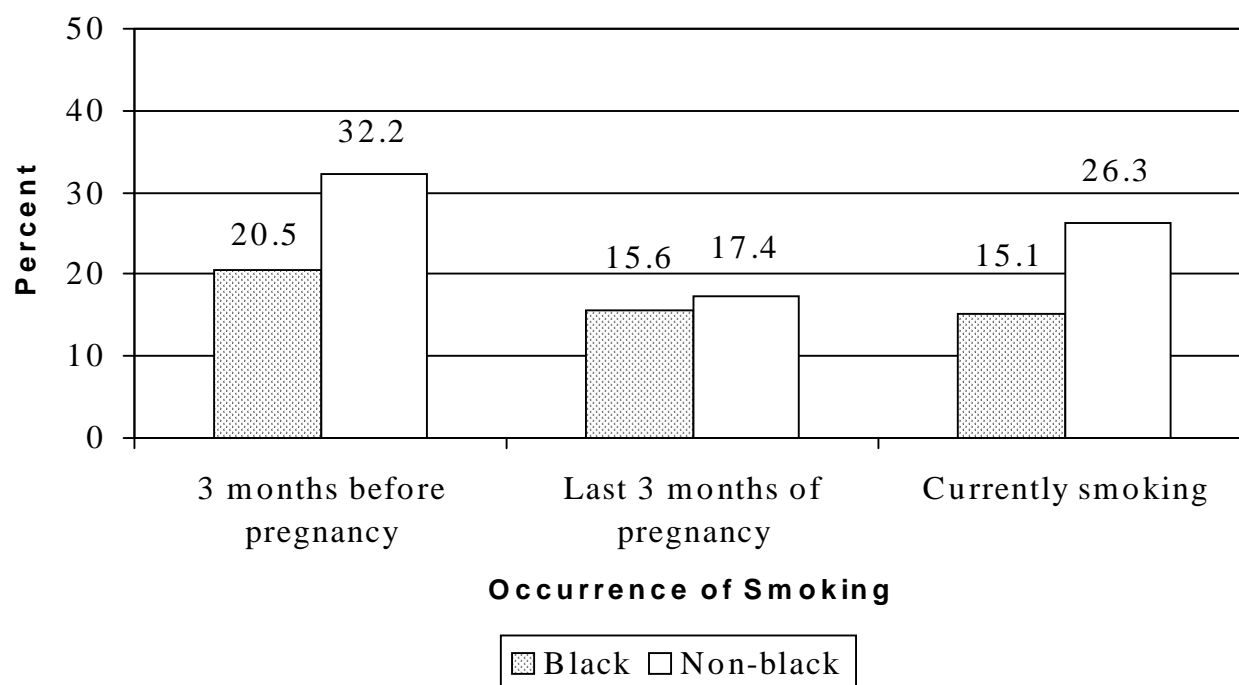
A smaller proportion of respondents aged 30 and older reported smoking at each of the three periods surrounding pregnancy compared with younger respondents (Figure 35, Table 24 in Appendix II).

FIGURE 35
Percentage of Mothers Who Smoked by Mother's AGE:
Before, During and After Pregnancy
1998 Michigan PRAMS



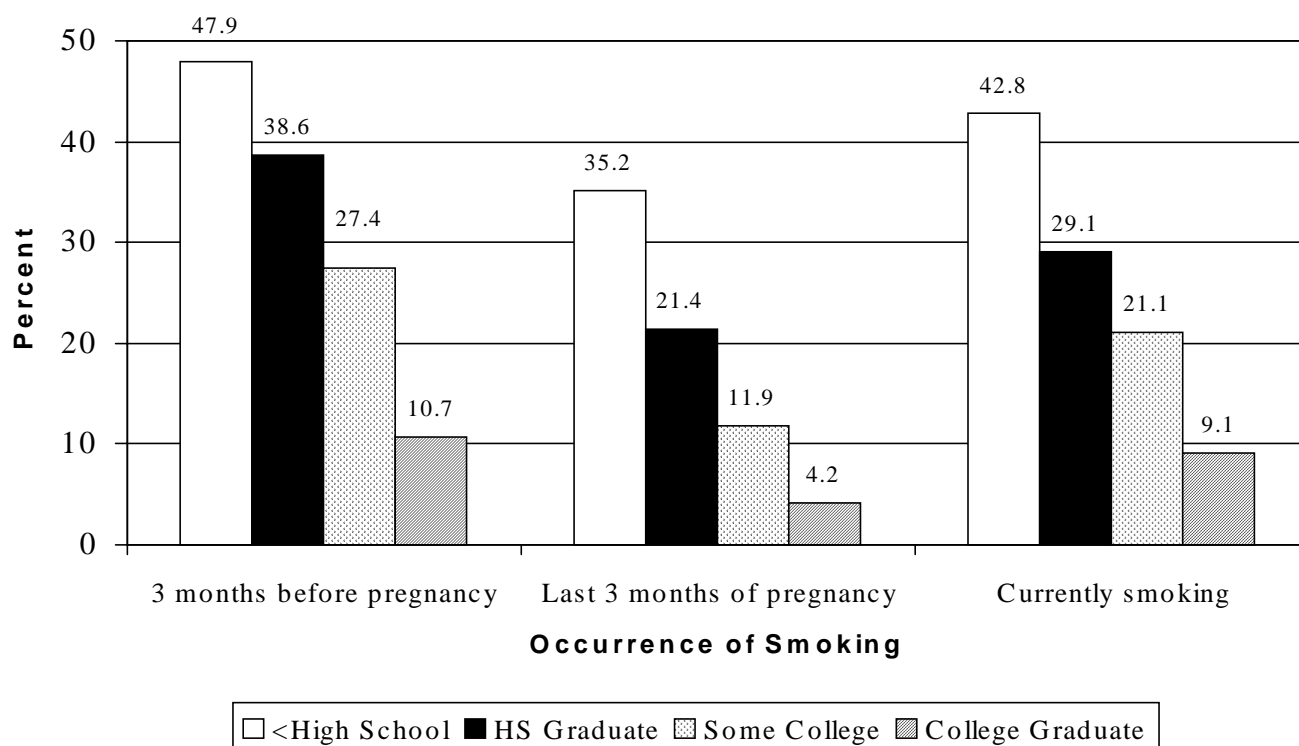
Black respondents were less likely to have reported smoking during any of the three periods surrounding pregnancy compared with non-black respondents (Figure 36, Table 24 in Appendix II).

FIGURE 36
Percentage of Mothers Who Smoked by Mother's RACE:
Before, During and After Pregnancy
1998 Michigan PRAMS



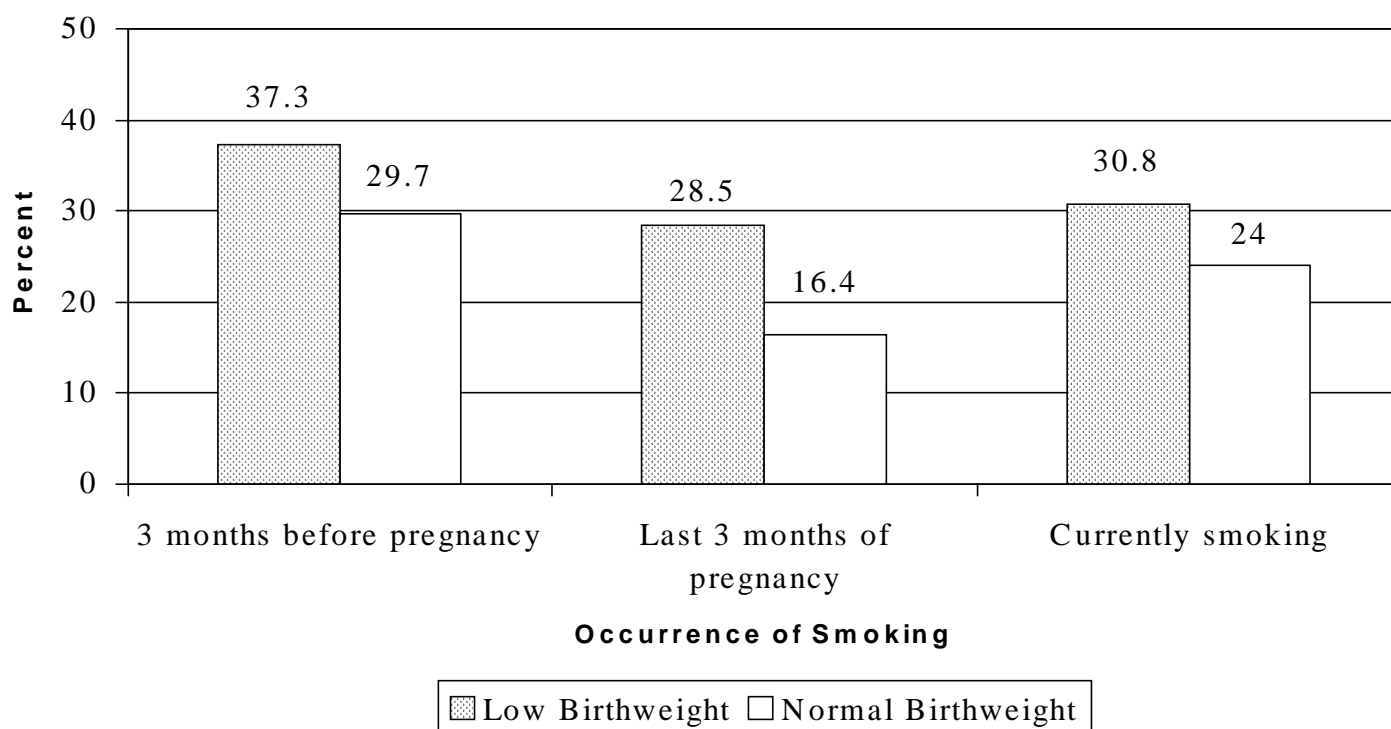
At each of the time periods surrounding pregnancy, education was negatively correlated with cigarette smoking (Figure 37, Table 24 in Appendix II).

FIGURE 37
Percentage of Mothers Who Smoked by Mother's Education Level:
Before, During and After Pregnancy
1998 Michigan PRAMS



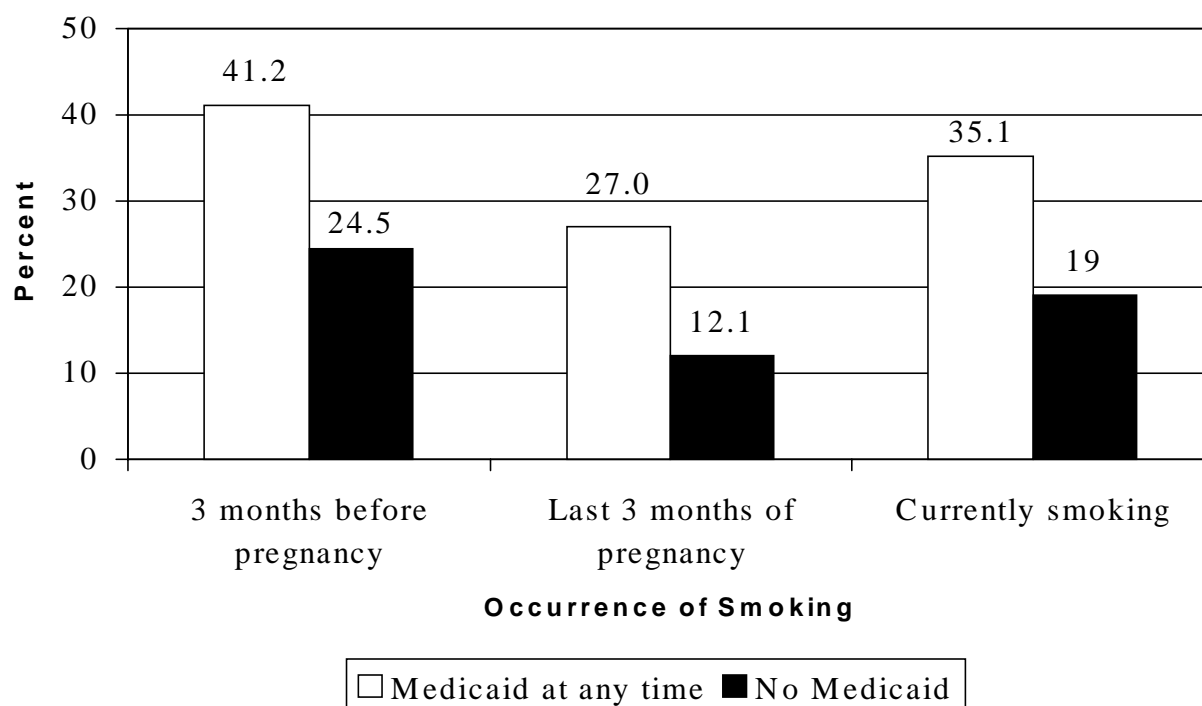
At each time period surrounding pregnancy, respondents with low birthweight infants were also more likely to have smoked compared with respondents with normal birthweight infants (Figure 38, Table 24 in Appendix II).

FIGURE 38
Percentage of Mothers Who Smoked by Infant's Birthweight:
Before, During and After Pregnancy
1998 Michigan PRAMS



A higher proportion of respondents with Medicaid coverage at any time (i.e., Medicaid before pregnancy, Medicaid paid for prenatal care, or Medicaid paid for delivery) reported smoking at each time point compared to respondents who were not receiving Medicaid coverage at any time (Figure 39, Table 24 in Appendix II).

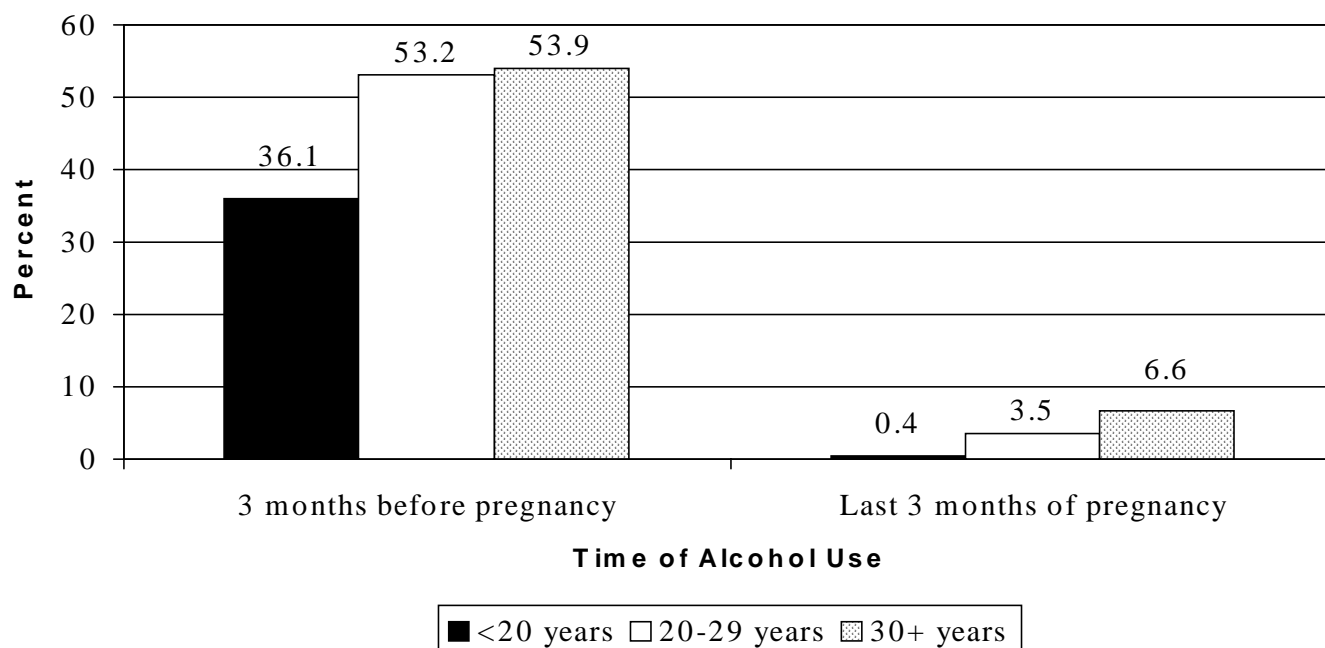
FIGURE 39
Percentage of Mothers Who Smoked by Medicaid Status:
Before, During and After Pregnancy
1998 Michigan PRAMS



Alcohol Consumption

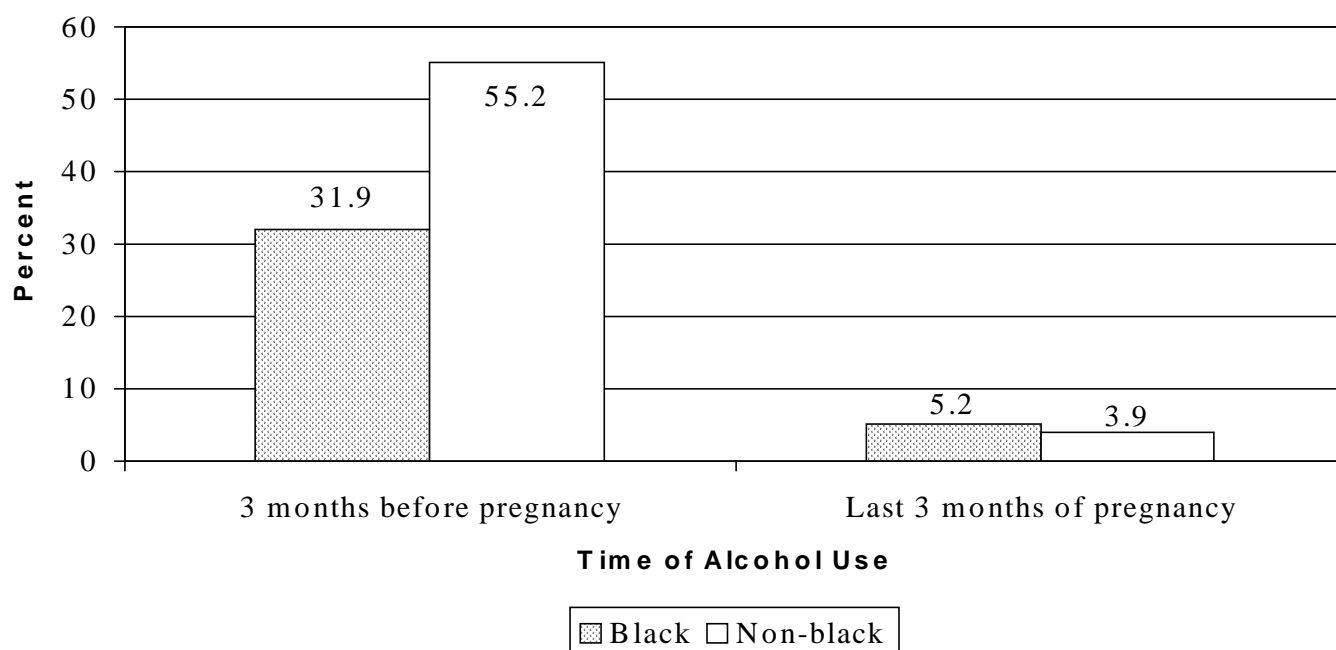
Respondents were asked whether or not they had consumed alcohol during the three-month period prior to becoming pregnant and during the last three months prior to delivery. Half of all respondents (51.0%, 95% CI ± 4.0) reported drinking alcohol during the three-month period preceding pregnancy, while 4.1 percent (95% CI ± 1.5) reported drinking alcohol during the last three months preceding delivery. These indicators were related to age. Women over the age of 19, and women 30 and over were more likely to drink alcohol in the three months prior to pregnancy, compared to teenaged respondents. (Figure 40, Table 25 in Appendix II).

FIGURE 40
Percentage of Mothers Who Consumed Alcohol by Mother's AGE:
Before and During Pregnancy
1998 Michigan PRAMS



Non-black women were almost twice as likely to drink alcohol three months prior to pregnancy than were black respondents (Figure 41, Table 25 in Appendix II).

FIGURE 41
Percentage of Mothers Who Consumed Alcohol by Mother's RACE:
Before and During Pregnancy
1998 Michigan PRAMS



APPENDIX I. METHODOLOGY

Survey Protocol, Sample, and Instrument

The data collection for the 1998 Michigan Pregnancy Risk Assessment Monitoring System (PRAMS) was conducted by the Michigan Department of Community Health. Software designed under the supervision of the Centers for Disease Control and Prevention (C.D.C.) was used to manage the 1998 sample, enforce the protocols, and enter the data.

There are two main components to the data collection for Michigan PRAMS. In the mail and phone component, the data collection methods used are standardized protocols used by CDC. A stratified systematic sample of approximately 200 new mothers is selected monthly from a frame of eligible birth certificates. Each sampled mother is mailed a letter of explanation, a 12-page survey, and an incentive two to six months after the birth of her child. A reminder letter, a second, and a third package are sent to those who do not respond. In addition, telephone calls are made to mothers who do not respond to the survey.

In the hospital component of data collection, at least 400 black mothers are sampled from hospital delivery logs per year, over 26 time points. Interviews are attempted before the mother leaves the hospital following delivery. A second mailed questionnaire follows two to six months after the in-hospital interview, which focuses on post-partum experiences. In 1998, five urban hospitals in Michigan participated in the PRAMS project (Hurley Medical Center, Hutzel Hospital, Sinai Hospital, Grace Hospital, and Riverview Hospital). The CDC methodology for PRAMS used by other states does not include the hospital component. This component is important for Michigan, however, because it allows oversampling of black women who are difficult to access via mailed surveys.

A total of 2,411 women were selected by the sampling frame to be eligible to participate in the study, and 1,572 women actually participated in the study. The demographic characteristics of the sample in this survey are presented in Table 1 in Appendix II.

The 1998 survey instrument included questions developed for PRAMS by the Centers for Disease Control and Prevention, as well as state-added questions. The survey instrument included questions on previous pregnancy, intendedness of pregnancy, health insurance, prenatal care, satisfaction with prenatal care, alcohol and tobacco use, major life stressors during pregnancy, physical abuse, hospital stays (pre-delivery and delivery), breastfeeding, second-hand smoke contact for infant, sleep position of infant, routine well baby care, income sources, resources needed, and resources accessed. Topics of particular interest were selected from the survey to include in this report.

Unless otherwise noted, respondents who refused to answer or who answered that they did not know were not included in the calculation of percentages of the population considered to have a certain characteristic or behavior. Sample sizes for each estimate varied and are reflected in the 95 percent confidence interval limits presented with each estimate.

As with all survey estimates, these estimates are subject to sampling error. The confidence intervals presented are an attempt to quantify this sampling error and to clarify the degree of confidence in the estimates presented.

Weighting and Interpretation of the Results

The 1998 Michigan PRAMS data was weighted by the Food and Nutrition Database Research Center at Michigan State University. There were three weighting components, which adjusted for the sample design, nonresponse, and omissions from the sampling frame. For the nonresponse step, development of the weight involved identifying, within each stratum, factors that are associated with response. These factors were age, education, and marital status. The stratum in the survey were race (black and non-black) and birthweight (low and normal). The weighting procedure results in estimates that are reflective of the characteristics and behaviors of women in Michigan in 1998 who had a live birth.

In 1998 the total response rate statewide was 65 percent. The response rates for each of the four stratum were as follows:

<u>Stratum</u>	
LBW, black	57%
LBW, non-black	69%
NBW, black	66%
NBW, non-black	72%

When the total response rate in any of the strata is less than 70 percent, the interpretation of the results for that stratum must be viewed with caution.

APPENDIX II. TABLES OF RESULTS

Table 1
Percentage of mothers' demographic characteristics
1998 Michigan PRAMS

	Sample n	Estimated N	Percent
Total	1,572	130,323	100.0
Age			
≤19 years	249	17,995	13.8
20-29 years	820	68,479	52.6
30+ years	498	43,779	33.6
Race			
Black	838	23,745	18.3
Non-black	731	106,138	81.7
Education			
<H.S. Graduate	330	23,330	18.1
H.S. Graduate	553	41,703	32.4
Some College	378	29,963	23.3
College Graduate	279	33,601	26.1
Marital Status			
Married	1,111	109,687	84.2
Other	458	20,606	15.8
Medicaid			
Medicaid at any time ¹	752	45,699	35.1
Before pregnancy	402	18,345	14.1
PNC payment	655	39,987	31.0
Delivery payment	584	39,579	31.4
No Medicaid at any time	818	84,538	64.9

1. Medicaid at any time was defined as having had Medicaid coverage just before pregnancy occurred, Medicaid-paid prenatal care, or Medicaid-paid delivery.

Table 2
Prevalence of low and normal birthweight by demographic characteristics
1998 Michigan PRAMS

	Low Birthweight Infants					Normal Birthweight Infants				
	Sample n	Estimated N	Percent	95% CI		Sample n	Estimated N	Percent	95% CI	
Total	703	10,344	7.95	± 0.2		848	119,689	92.1	± 0.2	
Age										
≤19 years	111	1,549	8.6	± 2.5		136	16,424	91.4	± 2.5	
20-29 years	346	4,983	7.3	± 0.8		465	63,379	92.7	± 0.8	
30+ years	246	3,812	8.7	± 1.3		247	39,886	91.3	± 1.3	
Race										
Black	379	3,170	13.4	± 0.4		450	20,511	86.6	± 0.4	
Non-black	323	7,115	6.7	± 0.2		397	98,818	93.3	± 0.2	
Education										
<H.S. Graduate	151	2,309	9.9	± 2.7		175	20,960	90.1	± 2.7	
H.S. Graduate	270	3,649	8.8	± 1.3		280	38,026	91.2	± 1.3	
Some College	161	2,304	7.7	± 1.5		210	27,566	92.3	± 1.5	
College Graduate	107	1,879	5.6	± 1.2		170	31,685	94.4	± 1.2	
Marital Status										
Married	498	8,120	7.4	± 0.4		602	101,412	92.6	± 0.4	
Other	206	2,245	10.9	± 2.2		246	18,277	89.1	± 2.2	

Table 3
Prevalence of pregnancies by intendedness of pregnancy
1998 Michigan PRAMS

	Sample n	Estimated N	Percent	95% CI
Total	1,447	121,156	100	-
Intendedness of pregnancy				
Wanted to become pregnant sooner	191	18,913	15.6	± 3.1
Wanted to become pregnant later	518	36,778	30.4	± 3.8
Became pregnant when wanted	493	50,579	41.8	± 4.1
Did not want to become pregnant	245	14,885	12.3	± 2.8

Table 4
Prevalence of intended and unintended pregnancies by demographic characteristics
1998 Michigan PRAMS

	Intended					Unintended				
	Sample n	Estimated N	Percent	95% CI		Sample n	Estimated N	Percent	95% CI	
Total	595	66,380	58.3	± 4.3		621	47,569	41.8	± 4.3	
Age										
≤19 years	35	3,933	26.3	± 12.8		145	11,044	73.7	± 12.8	
20-29 years	288	32,536	54.0	± 6.0		346	27,753	46.0	± 6.0	
30+ years	272	29,910	77.4	± 5.8		128	8,742	22.6	± 5.8	
Race										
Black	188	5,504	31.8	± 4.7		393	11,822	68.2	± 4.7	
Non-black	407	60,876	63.0	± 5.0		228	35,747	37.0	± 5.0	
Education										
<H.S. Graduate	54	6,259	33.0	± 12.9		172	12,736	67.1	± 12.9	
H.S. Graduate	181	18,667	51.9	± 7.2		238	17,303	48.1	± 7.2	
Some College	159	14,798	55.7	± 8.3		145	11,762	44.3	± 8.3	
College Graduate	191	25,683	83.0	± 6.0		54	5,270	17.0	± 6.0	
Marital Status										
Married	535	62,993	64.1	± 4.6		375	35,279	35.9	± 4.6	
Other	60	3,387	21.6	± 9.4		245	12,280	78.4	± 9.4	
Infant's Birthweight										
Low	251	4,249	54.1	± 4.6		268	3,609	45.9	± 4.6	
Normal	341	62,088	58.6	± 4.6		343	43,807	41.4	± 4.6	
Medicaid										
Medicaid at any time ¹	153	12,262	33.9	± 7.8		383	23,875	66.1	± 7.8	
Before pregnancy	65	3,868	30.0	± 12.0		198	9,010	70.0	± 12.0	
No Medicaid at any time	442	54,117	69.6	± 4.8		237	23,658	30.4	± 4.8	

1. Medicaid at any time was defined as having had Medicaid coverage just before pregnancy occurred, Medicaid-paid prenatal care, or Medicaid-paid delivery.

Table 5

Prevalence of birth control use among women not intending pregnancy
1998 Michigan PRAMS

	Birth Control Use (Not Intending)				
	Sample n	Estimated N	Percent	±	95% CI
Total	256	17,471	36.9	±	6.4
Age					
≤19 years	55	3,286	29.9	±	12.5
20-29 years	148	10,871	39.3	±	8.6
30+ years	52	3,296	37.8	±	14.0
Race					
Black	167	4,956	42.3	±	6.2
Non-black	89	12,515	35.1	±	8.2
Education					
<H.S. Graduate	58	3,617	28.7	±	13.8
H.S. Graduate	103	6,824	39.4	±	9.7
Some College	62	4,603	39.3	±	12.0
College Graduate	28	2,292	43.5	±	19.1
Marital Status					
Married	155	12,930	36.7	±	7.7
Other	101	4,542	37.2	±	11.1
Infant's Birthweight					
Low	118	1,515	42.8	±	6.7
Normal	134	15,907	36.4	±	6.9
Medicaid					
Medicaid at any time ¹	154	9,222	38.9	±	9.3
Before pregnancy	68	2,757	30.7	±	12.1
No Medicaid at any time	101	8,199	34.8	±	8.8

1. Medicaid at any time was defined as having had Medicaid coverage just before pregnancy occurred, Medicaid-paid prenatal care, or Medicaid-paid delivery.

Table 5A

Use of birth control at the time pregnancy occurred among women
1998 Michigan PRAMS

	Sample n	Estimated N	Percent	±	95% CI
Birth control use					
Yes	428	27,899	21.5	±	3.2
No	1132	101,618	78.5	±	3.2

Table 6
Prenatal care started by demographic characteristics
1998 Michigan PRAMS

	First Trimester					Second Trimester				
	Sample n	Estimated N	Percent	95% CI		Sample n	Estimated N	Percent	95% CI	
Total	1,159	109,056	87.1	± 2.4		225	13,003	10.4	± 2.2	
Age										
≤19 years	140	12,570	75.8	± 8.8		63	3,300	19.9	± 8.4	
20-29 years	627	58,627	88.4	± 3.3		110	6,064	9.2	± 2.9	
30+ years	394	38,278	89.5	± 3.8		52	3,639	8.5	± 3.7	
Race										
Black	537	15,352	69.4	± 4.0		156	4,681	21.2	± 3.6	
Non-black	622	93,704	90.9	± 2.8		69	8,322	8.1	± 2.6	
Education										
<H.S. Graduate	181	16,741	76.4	± 8.2		87	3,564	16.3	± 6.8	
H.S. Graduate	415	34,133	85.1	± 4.5		79	5,171	12.9	± 4.4	
Some College	298	25,898	89.0	± 4.5		45	2,940	10.1	± 4.5	
College Graduate	250	31,263	95.0	± 3.4		11	1,278	3.9	± 3.1	
Marital Status										
Married	895	96,335	90.6	± 2.4		118	8,617	8.1	± 2.3	
Other	267	13,161	67.9	± 8.2		107	4,386	22.6	± 7.1	
Infant's Birthweight										
Low	506	7,825	80.9	± 3.3		101	1,453	15.0	± 3.0	
Normal	648	101,560	87.7	± 2.6		124	11,550	10.0	± 2.4	
Medicaid Paid PNC										
Yes	430	30,342	80.0	± 4.8		150	6,304	16.6	± 4.6	
No	725	78,571	90.3	± 2.9		71	6,612	7.6	± 2.6	

Table 6, cont.
Prenatal care started by demographic characteristics
1998 Michigan PRAMS

	Third Trimester					No Prenatal Care				
	Sample n	Estimated N	Percent	±	95% CI	Sample n	Estimated N	Percent	±	95% CI
Total	36	1,900	1.5	±	1.0	53	1,294	1.0	±	0.4
Age										
≤19 years	13	376	2.3	±	1.6	13	334	2.0	±	1.5
20-29 years	12	999	1.5	±	1.6	24	612	0.9	±	0.5
30+ years	11	525	1.2	±	1.2	13	318	0.7	±	0.5
Race										
Black	31	921	4.2	±	1.7	48	1,182	5.3	±	1.9
non-black	5	980	1.0	±	1.1	5	112	0.1	±	0.1
Education										
<H.S. Graduate	19	1,009	4.6	±	4.5	22	597	2.7	±	1.5
H.S. Graduate	9	458	1.1	±	1.3	15	329	0.8	±	0.6
Some College	6	154	0.5	±	0.5	4	101	0.4	±	0.4
College Graduate	2	280	0.9	±	1.4	4	99	0.3	±	0.4
Marital Status										
Married	16	829	0.8	±	0.6	21	505	0.5	±	0.3
Other	20	1,072	5.5	±	5.0	29	759	3.9	±	1.9
Infant's Birthweight										
Low	10	89	1.0	±	0.7	29	303	3.1	±	1.3
Normal	23	1,773	1.5	±	1.0	21	961	0.8	±	0.4
Medicaid Paid PNC										
Yes	21	573	1.5	±	0.8	31	713	1.9	±	0.9
No	12	1,240	1.4	±	1.3	22	581	0.7	±	0.4

Table 6A (Fig 19)
Trimester when prenatal care started by source of PNC payments
1998 Michigan PRAMS

	Medicaid				Insurance			
	Sample n	Estimated N	Percent	95% CI	Sample n	Estimated N	Percent	95% CI
1st trimester	430	30,342	80	± 4.8	706	77,984	91.4	± 2.7
2nd trimester	150	6,304	16.6	± 4.6	69	6,559	7.7	± 2.6
3rd trimester	21	573	1.5	± 0.8	7	416	0.5	± 0.6
no care	31	713	1.9	0.9	18	405	0.5	0.3

Table 7
Prevalence of starting prenatal care as early as
mother desired by demographic characteristics
1998 Michigan PRAMS

	Prenatal Care as Early as Mother Desired				
	Sample n	Estimated N	Percent	±	95% CI
Total	1,209	105,538	81.8	±	3.1
Age					
≤19 years	158	11,160	63.5	±	11.6
20-29 years	632	55,369	81.2	±	4.3
30+ years	418	39,391	90.3	±	3.7
Race					
Black	602	17,038	73.5	±	3.9
Non-black	607	88,500	83.6	±	3.7
Education					
<H.S. Graduate	223	16,569	71.7	±	10.4
H.S. Graduate	423	33,857	81.9	±	4.9
Some College	301	24,020	80.4	±	6.2
College Graduate	242	30,007	89.6	±	4.7
Marital Status					
Married	910	94,030	85.9	±	3.1
Other	300	11,929	59.7	±	9.2
Infant's Birthweight					
Low	528	8,024	78.7	±	3.3
Normal	669	97,745	82.1	±	3.4
Medicaid Paid PNC					
Yes	471	30,647	76.9	±	5.7
No	740	75,295	84.7	±	3.7

Table 8
Reasons for not getting prenatal care as early as mother desired
1998 Michigan PRAMS

	Sample n	Estimated N	Percent	95% CI
Reason for No Prenatal Care				
Could Not Get Earlier Appointment	81	7,251	31.5	± 9.0
Didn't Know I Was Pregnant	135	9,326	40.5	± 9.3
Lack of Money or Insurance	53	2,691	11.7	± 5.1
Too Many Other Things Going On	24	1,019	4.4	± 2.6
Couldn't Find Doctor to Take Me as a Patient	5	124	0.5	± 0.6
No Transportation	14	1,188	5.2	± 4.7
Couldn't Get Child care for Other Children	3	83	0.4	± 0.5
Other	54	3,881	16.9	± 7.5

Table 9
Source of payment for prenatal care
1998 Michigan PRAMS

	Sample n	Estimated N	Percent	95% CI
Source of Payment				
Private Health Insurance	846	87,695	68.0	± 3.7
Medicaid	655	39,987	31.0	± 3.7
Personal Income	142	17,594	13.6	± 2.8
MICH CARE	39	2,635	2.0	± 1.0
Free Care	9	375	0.3	± 0.4
Other	41	1,921	1.5	± 0.9

Table 10
Prevalence of mothers with health insurance or Medicaid as source
of prenatal care payment by demographic characteristics
1998 Michigan PRAMS

	Private Health Insurance for PNC					Medicaid Coverage for PNC				
	Sample n	Estimated N	Percent	95% CI		Sample n	Estimated N	Percent	95% CI	
Total	846	87,695	68.0	± 3.7		655	39,987	31.0	± 3.7	
Age										
≤19 years	84	8,155	46.2	± 12.1		150	10,550	59.8	± 11.7	
20-29 years	406	43,061	63.4	± 5.3		383	23,343	34.4	± 5.2	
30+ years	352	36,418	84.0	± 4.4		121	6,085	14.0	± 4.1	
Race										
Black	303	9,086	39.3	± 4.3		471	13,224	57.2	± 4.3	
Non-black	542	78,569	74.5	± 4.5		182	26,362	25.0	± 4.5	
Education										
<H.S. Graduate	71	6,604	28.7	± 11.0		231	16,054	69.8	± 11.0	
H.S. Graduate	263	27,196	66.3	± 5.9		266	13,779	33.6	± 5.9	
Some College	239	21,438	71.6	± 6.8		132	8,139	27.2	± 6.7	
College Graduate	252	31,253	93.8	± 3.6		20	1,914	5.7	± 3.6	
Marital Status										
Married	747	82,604	75.6	± 4.0		342	27,082	24.8	± 4.0	
Other	97	5,069	25.8	± 7.9		312	12,897	65.8	± 9.0	
Infant's Birthweight										
Low	364	6,033	59.4	± 3.9		301	3,976	39.1	± 3.9	
Normal	471	81,498	68.8	± 4.1		346	35,912	30.3	± 4.0	

Table 11
Prevalence of infant's birthweight by source of prenatal care payment
1998 Michigan PRAMS

	Sample n	Estimated N	Percent	95% CI
Source of Payment				
Medicaid				
Total	647	39,888	100	-
Low Birthweight	301	3,976	10.0 ±	1.6
Normal Birthweight	346	35,912	90.0 ±	1.6
Private Health Insurance				
Total	835	87,531	100	-
Low Birthweight	364	6,033	6.9 ±	0.5
Normal Birthweight	471	81,498	93.1 ±	0.5
Personal Income				
Total	140	17,556	100	-
Low Birthweight	55	1,015	5.8 ±	1.9
Normal Birthweight	85	16,541	94.2 ±	1.9
MICHCARE				
Total	39	2,635	100	-
Low Birthweight	19	258	9.8 ±	6.6
Normal Birthweight	20	2,377	90.2 ±	6.6
Free Care				
Total	9	376	100	-
Low Birthweight	6	50	13.2 ±	19.1
Normal Birthweight	3	326	86.8 ±	19.1
Other				
Total	40	1,917	100	-
Low Birthweight	18	228	11.9 ±	9.3
Normal Birthweight	22	1,689	88.1 ±	9.3

Table 12
Place where prenatal care was received by demographic characteristics
1998 Michigan PRAMS

	Hospital or Clinic					Health Department				
	Sample n	Estimated N	Percent	±	95% CI	Sample n	Estimated N	Percent	±	95% CI
Total	415	20,807	16.2	±	2.7	67	3,793	2.9	±	1.3
Age										
≤19 years	87	4,657	26.4	±	10.0	24	1,850	10.5	±	7.9
20-29 years	214	10,946	16.1	±	3.8	38	1,604	2.4	±	1.2
30+ years	114	5,204	12.0	±	3.7	5	339	0.8	±	1.1
Race										
Black	327	8,978	38.9	±	4.2	50	1,653	7.2	±	2.3
Non-black	90	11,847	11.2	±	3.2	17	2,140	2.0	±	1.5
Infant's Birthweight										
Low	190	2,302	22.7	±	3.2	31	423	4.2	±	1.6
Normal	219	18,446	15.6	±	2.9	36	3,370	2.8	±	1.4
	Doctor's Office, HMO, PPO					Other				
	Sample n	Estimated N	Percent	±	95% CI	Sample n	Estimated N	Percent	±	95% CI
Total	900	91,610	71.1	±	3.6	101	7,624	5.9	±	2.1
Age										
≤19 years	92	8,643	49.0	±	12.2	30	1,760	10.0	±	7.8
20-29 years	52	4,769	70.0	±	3.1	28	3,342	7.0	±	2.9
30+ years	339	35,780	82.5	±	4.6	19	1,095	2.5	±	1.9
Race										
Black	344	10,266	44.5	±	4.3	63	1,415	6.1	±	1.9
Non-black	555	80,935	76.8	±	4.3	38	6,209	5.9	±	2.5
Infant's Birthweight										
Low	387	6,427	63.3	±	3.8	52	656	6.5	±	1.9
Normal	505	85,048	71.8	±	3.9	49	6,968	5.9	±	2.2

Table 13
Topics addressed by health care professional during prenatal care
1998 Michigan PRAMS

	Sample n	Estimated N	Percent	95% CI
Medication Use	1,358	115,129	91.2 ±	2.3
Early Labor	1,255	108,435	85.9 ±	2.8
Nutrition	1,273	109,169	86.6 ±	2.7
Baby's Development	1,283	109,127	86.8 ±	2.7
Testing for HIV	1,297	105,710	84.0 ±	3.1
Alcohol Use	1,273	103,159	81.7 ±	3.1
Smoking	1,277	104,071	82.6 ±	3.1
Breast Feeding	1,235	106,085	84.0 ±	2.9
Birth Control	1,197	102,949	81.4 ±	3.1
Illegal Drugs	1,154	88,971	70.3 ±	3.7
Preventing HIV	901	63,047	50.2 ±	4.1
Seatbelt Use	813	65,958	52.1 ±	4.1
Physical Abuse	588	37,840	30.1 ±	3.7

Table 14
Topics addressed by health care professional during
prenatal care by Medicaid-paid-for PNC
1998 Michigan PRAMS

	Medicaid Paid					No Medicaid				
	Sample n	Estimated	Percent	±	95% CI	Sample n	Estimated	Percent	±	95% CI
Medication Use	579	37,129	93.2	±	2.7	779	78,000	90.3	±	3.1
Early Labor	540	33,357	83.8	±	5.6	715	75,078	86.8	±	3.2
Nutrition	533	34,673	87.5	±	4.1	740	74,495	86.2	±	3.4
Baby's Development	549	35,388	89.3	±	3.9	734	73,740	85.6	±	3.5
Testing for HIV	585	36,186	91.3	±	4.3	712	69,524	80.6	±	3.9
Alcohol Use	575	36,037	90.4	±	3.6	698	67,122	77.6	±	4.2
Smoking	584	36,602	92.0	±	3.2	693	67,468	78.3	±	4.1
Breast Feeding	529	35,056	88.6	±	3.8	706	71,028	81.9	±	3.8
Birth Control	545	35,001	87.9	±	4.2	652	67,949	78.4	±	4.0
Illegal Drugs	547	33,827	84.9	±	4.6	607	55,144	63.6	±	4.8
Preventing HIV	477	25,824	65.2	±	7.3	424	37,223	43.3	±	4.9
Seatbelt Use	349	20,731	52.0	±	7.4	464	45,227	52.1	±	4.9
Physical Abuse	329	17,505	44.2	±	7.3	259	20,334	23.6	±	4.1

Table 15
Prevalence of ever breastfed by demographic characteristics
1998 Michigan PRAMS

	Ever Breastfed				
	Sample n	Estimated N	Percent	±	95% CI
Total	693	72,821	60.8	±	4.2
Age					
≤19 years	80	6,817	42.7	±	12.8
20-29 years	350	36,134	57.1	±	5.9
30+ years	263	29,871	73.8	±	5.9
Race					
Black	263	8,115	45.6	±	5.0
Non-black	430	64,677	63.7	±	4.9
Education					
<H.S. Graduate	71	6,282	31.4	±	12.1
H.S. Graduate	220	22,466	58.3	±	6.8
Some College	205	19,081	68.0	±	7.5
College Graduate	188	24,334	76.8	±	6.8
Marital Status					
Married	590	66,141	64.3	±	4.5
Other	103	6,680	39.6	±	10.4
Infant's Birthweight					
Low	284	4,610	53.8	±	4.5
Normal	403	68,112	61.4	±	4.5
Medicaid					
Medicaid at any time ¹	217	16,995	43.2	±	7.6
Before pregnancy	90	5,300	36.1	±	11.4
No Medicaid at any time	477	55,837	69.5	±	4.8

1. Medicaid at any time was defined as having had Medicaid coverage just before pregnancy occurred, Medicaid-paid prenatal care, or Medicaid-paid delivery.

Table 16
Reasons for stopping breastfeeding
1998 Michigan PRAMS

	Sample n	Estimated N	Percent	95% CI
Reason for Stopping Breastfeeding				
Go to Work or School	136	12,549	27.3 ±	5.9
Baby Didn't BF Very Well	112	10,756	23.4 ±	5.8
Not Enough Milk	142	11,502	25.0 ±	5.7
Felt It Was Time to Stop	74	8,444	18.4 ±	5.2
Didn't Want to	73	7,600	16.5 ±	5.1
Taking Medication	37	2,395	5.2 ±	2.7
Baby Not with Mother	14	451	1.0 ±	1.0
Other	130	12,911	28.1 ±	6.3

Table 17
Reasons for not breastfeeding among mothers who never breastfed
1998 Michigan PRAMS

	Sample n	Estimated N	Percent	95% CI
Reason for Stopping Breast Feeding				
Didn't Want to	384	34,955	74.6 ±	5.7
Go to Work or School	122	10,047	21.5 ±	5.5
Taking Medication	70	2,647	5.7 ±	2.4
Better to Bottle Feed	59	2,820	6.0 ±	2.9
Takes Too Much Time	49	3,272	7.0 ±	3.4
Baby Not with Mother	34	1,488	3.2 ±	2.5
Other	128	7,835	16.7 ±	4.9

Table 18
Prevalence of mothers receiving WIC by demographic characteristics
1998 Michigan PRAMS

	Mothers Receiving WIC				
	Sample n	Estimated N	Percent	95% CI	
Total	764	51,493	40.0	±	3.9
Age					
≤19 years	185	13,427	74.7	±	10.2
20-29 years	431	29,334	43.3	±	5.5
30+ years	148	8,733	20.3	±	5.1
Race					
Black	524	15,229	64.7	±	4.1
Non-black	239	35,873	34.2	±	4.8
Education					
<H.S. Graduate	239	17,657	75.8	±	9.8
H.S. Graduate	309	18,954	46.0	±	6.5
Some College	174	11,358	38.0	±	7.4
College Graduate	32	3,055	9.3	±	4.5
Marital Status					
Married	442	37,010	34.1	±	4.4
Other	322	14,483	70.8	±	8.2
Infant's Birthweight					
Low	344	4,635	45.1	±	4.0
Normal	412	46,775	39.5	±	4.2

Table 19
Prevalence of mother's hospital stay following delivery
by source of prenatal care payments
1998 Michigan PRAMS

	Private Insurance					Medicaid				
	Sample n	Estimated N	Percent	95% CI		Sample n	Estimated N	Percent	95% CI	
Total										
Mother Nights in Hospital										
Did Not Stay	2	42	0.1	±	0.1	2	73	0.2	±	0.4
1 night	149	19,533	22.6	±	3.3	110	10,391	28.1	±	7.4
2 nights	341	41,191	47.7	±	5.0	216	15,486	41.9	±	7.8
3 nights	166	18,023	20.9	±	4.0	113	7,787	21.1	±	6.6
4+ nights	134	7,480	8.7	±	2.5	95	3,245	8.8	±	3.1
Did Not Go	2	71	0.1	±	1.2	0	0	0	±	0.0
	Personal Income					Other				
	Sample n	Estimated N	Percent	95% CI		Sample n	Estimated N	Percent	95% CI	
Total										
Mother Nights in Hospital										
Did Not Stay	1	21	0.1	±	0.2	0	0	0.0	±	0.0
1 night	22	3,891	22.3	±	9.8	6	991	58.4	±	30.5
2 nights	63	9,491	54.3	±	11.2	13	433	25.5	±	21.3
3 nights	25	2,530	14.5	±	7.5	4	85	5.0	±	6.3
4+ nights	27	1,537	8.8	±	5.8	7	158	9.3	±	10.1
Did Not Go	0	0	0.0	±	0.0	1	28	1.7	±	3.4
	MICH CARE					Free Care				
	Sample n	Estimated N	Percent	95% CI		Sample n	Estimated N	Percent	95% CI	
Total										
Mother Nights in Hospital										
Did Not Stay	0	0	0.0	±	0.0	0	0	0.0	±	0.0
1 night	4	382	15.1	±	18.2	0	0	0.0	±	0.0
2 nights	14	1,419	55.9	±	25.9	3	80	23.3	±	42.6
3 nights	9	613	24.1	±	22.8	3	27	7.9	±	13.5
4+ nights	6	125	4.9	±	5.4	2	238	68.9	±	49.3
Did Not Go	0	0	0.0	±	0.0	0	0	0.0	±	0.0

Table 20
Prevalence of infant's hospital stay following delivery by source
of prenatal care payments
1998 Michigan PRAMS

	Private Insurance					Medicaid				
	Sample n	Estimated N	Percent	95% CI		Sample n	Estimated N	Percent	95% CI	
Total										
Infant Nights in Hospital										
Did Not Stay	11	430	0.5	± 0.6		14	339	0.9	± 0.6	
1 night	131	19,838	23.0	± 4.3		81	9,718	26.6	± 7.6	
2 nights	291	41,838	48.6	± 5.0		180	15,772	43.2	± 7.9	
3 nights	111	14,040	16.3	± 3.6		75	6,161	16.9	± 6.2	
4+ nights	232	9,926	11.5	± 2.8		161	4,550	12.5	± 3.6	
Did Not Go	3	79	0.1	± 0.1		0	0	0.0	± 0.0	
	Personal Income					Other				
	Sample n	Estimated N	Percent	95% CI		Sample n	Estimated N	Percent	95% CI	
Total										
Infant Nights in Hospital										
Did Not Stay	2	42	0.2	± 0.3		0	0	0.0	± 0.0	
1 night	21	3,870	22.2	± 9.8		6	991	58.4	± 30.5	
2 nights	52	8,840	50.8	± 11.3		11	405	23.9	± 20.5	
3 nights	17	1,937	11.1	± 6.8		3	107	6.3	± 8.4	
4+ nights	41	2,711	15.6	± 8.2		11	193	11.4	± 10.6	
Did Not Go	0	0	0.0	± 0.0		0	0	0.0	± 0.0	
	MICH CARE					Free Care				
	Sample n	Estimated N	Percent	95% CI		Sample n	Estimated N	Percent	95% CI	
Total										
Mother Nights in Hospital										
Did Not Stay	0	0	0.0	± 0.0		0	0	0.0	± 0.0	
1 night	3	361	14.4	± 18.4		1	66	19.0	± 40.0	
2 nights	15	1,435	57.3	± 26.2		1	7	2.1	± 4.9	
3 nights	5	557	22.2	± 23.1		4	257	74.5	± 44.4	
4+ nights	9	151	6.0	± 5.6		2	15	4.4	± 8.3	
Did Not Go	0	0	0.0	± 0.0		0	0	0.0	± 0.0	

Table 21
Prevalence of infants placed in intensive care units by
mothers' demographic characteristics
1998 Michigan PRAMS

	Infants Placed in ICU			
	Sample n	Estimated N	Percent	95% CI
Total	411	15,297	12.1 ±	2.4
Age				
≤19 years	56	1,849	10.9 ±	6.6
20-29 years	219	8,121	12.3 ±	3.4
30+ years	136	5,327	12.4 ±	3.8
Race				
Black	201	3,038	15.5 ±	2.9
Non-black	209	12,200	11.5 ±	2.7
Education				
<H.S. Graduate	74	2,903	13.4 ±	7.6
H.S. Graduate	142	3,849	9.5 ±	3.2
Some College	99	3,122	10.7 ±	4.0
College Graduate	86	5,202	15.6 ±	5.4
Marital Status				
Married	313	13,227	12.2 ±	2.6
Other	99	2,091	11.6 ±	4.5
Infant's Birthweight				
Low	340	5,270	54.2 ±	4.3
Normal	68	10,011	8.6 ±	2.5
Medicaid				
Medicaid at anytime ¹	191	6,506	15.2 ±	4.7
No Medicaid at anytime	221	8,812	10.6 ±	2.6

1. Medicaid at anytime was defined as having had Medicaid coverage just before pregnancy occurred, Medicaid-paid prenatal care, or Medicaid-paid delivery.

Table 22
 Number of stressors mothers encountered
 during the year preceding delivery
 1998 Michigan PRAMS

	Sample n	Estimated N	Percent	95% CI
Number of Stressors				
None	355	32,230	24.7 ±	3.5
1 Stressor	332	30,890	23.7 ±	3.5
2 Stressor	232	19,335	14.8 ±	2.9
3 Stressor	217	16,206	12.4 ±	2.6
4+ Stressor	435	31,613	24.3 ±	3.5

Table 22A
 Number of stressors mothers encountered during the year preceding delivery
 1998 Michigan PRAMS

	Sample n	Estimated N	Percent	95% CI
Number of Stressors				
None	355	32,230	24.7 ±	3.5
1+ Stressor	1,216	98,044	75.3 ±	3.5

Table 23
 Type of stressors mothers encountered during the year preceding delivery
 1998 Michigan PRAMS

	Sample n	Estimated N	Percent	95% CI
Type of Stressors				
Moved to New Home	525	47,513	36.7 ±	3.9
Family Member Was Sick	476	37,036	28.7 ±	3.6
Arguments With Partner	479	34,631	26.8 ±	3.5
Could Not Pay Bills	417	34,985	27.1 ±	3.6
Someone Very Close Died	374	27,757	21.4 ±	3.2
Someone Very Close Has Alcohol or Drug Problem	267	20,002	15.4 ±	2.9
Divorced or Separated	230	13,436	10.4 ±	2.4
Partner Didn't Want Pregnancy	195	15,317	11.8 ±	2.6
Respondent Lost Job, Undesired	199	11,361	8.8 ±	2.1
Partner Lost Job	178	13,406	10.4 ±	2.4
Respondent in Physical Fight	107	5,543	4.3 ±	1.4
Partner Went to Jail	122	7,263	5.6 ±	1.8
Respondent Was Homeless	56	1,683	1.3 ±	0.4

Table 24
Prevalence of smoking by demographic characteristics
1998 Michigan PRAMS

	3 Months Before Pregnancy				Last 3 Months of Pregnancy			
	Sample n	Estimated N	Percent	95% CI	Sample n	Estimated N	Percent	95% CI
Total								
No Smoking	1,069	86,998	69.7	± 3.9	1,224	105,191	82.7	± 3.2
Smoking	438	37,757	30.3	± 3.9	301	22,012	17.3	± 3.2
Age								
≤19 years	55	6,261	37.9	± 12.6	34	4,008	22.5	± 11.3
20-29 years	235	21,428	32.8	± 5.5	166	12,074	18.2	± 4.4
30+ years	148	10,068	23.5	± 5.6	101	5,930	13.8	± 4.4
Race								
Black	204	4,706	20.5	± 3.3	147	3,625	15.6	± 3.0
Non-black	234	32,699	32.2	± 4.7	154	18,036	17.4	± 3.8
Education								
<H.S. Graduate	127	10,418	47.9	± 12.1	112	7,923	35.2	± 11.3
H.S. Graduate	174	15,283	38.6	± 6.6	117	8,571	21.4	± 5.6
Some College	91	7,857	27.4	± 7.3	48	3,498	11.9	± 5.1
College Graduate	36	3,524	10.7	± 4.8	17	1,409	4.2	± 3.0
Marital Status								
Married	293	30,974	29.4	± 4.3	193	18,701	17.4	± 3.7
Other	145	6,783	34.6	± 9.0	108	3,311	16.8	± 5.1
Infant's Birthweight								
Low	236	3,712	37.3	± 4.1	172	2,862	28.5	± 3.9
Normal	201	34,027	29.7	± 4.2	128	19,131	16.4	± 3.5
Medicaid								
Medicaid at any time ¹	266	17,840	41.2	± 7.1	206	11,959	27.0	± 6.3
Before pregnancy	133	6,875	39.4	± 10.4	111	4,428	25.0	± 8.1
No Medicaid at any time	173	19,925	24.5	± 4.5	96	10,061	12.1	± 3.6

1. Medicaid at anytime was defined as having had Medicaid coverage just before pregnancy occurred, Medicaid-paid prenatal care, or Medicaid-paid delivery.

Table 24, cont.
 Prevalence of smoking by demographic characteristics
 1998 Michigan PRAMS

	Currently Smoking			
	Sample n	Estimated	Percent	95% CI
Total				
No Smoking	1,144	95,439	75.5 ±	3.7
Smoking	336	31,021	24.5 ±	3.7
Age				
≤19 years	40	5,069	29.2 ±	12.2
20-29 years	184	17,974	27.2 ±	5.3
30+ years	112	7,978	18.5 ±	5.1
Race				
Black	136	3,343	15.1 ±	3.1
Non-black	199	27,318	26.3 ±	4.4
Education				
<H.S. Graduate	96	9,326	42.8 ±	12.3
H.S. Graduate	134	11,775	29.1 ±	6.2
Some College	70	6,202	21.1 ±	6.7
College Graduate	26	3,042	9.1 ±	4.6
Marital Status				
Married	238	26,808	25.0 ±	4.2
Other	98	4,213	21.7 ±	7.4
Infant's Birthweight				
Low	181	3,047	30.8 ±	4.0
Normal	153	27,950	24.0 ±	4.0
Medicaid				
Medicaid at any time ¹	211	15,277	35.1 ±	7.1
Before pregnancy	107	5,457	31.8 ±	10.0
No Medicaid at any time	125	15,744	19.0 ±	4.2

Table 25
Prevalence of drinking by demographic characteristics
1998 Michigan PRAMS

	3 Months Before Pregnancy				Last 3 Months of Pregnancy			
	Sample n	Estimated N	Percent	95% CI	Sample n	Estimated N	Percent	95% CI
Total								
No Drinking	888	61,102	46.9	± 4.0	1,458	123,818	95.1	± 1.5
Drinking	639	66,476	51.0	± 4.0	75	5,361	4.1	± 1.5
Age								
≤19 years	51	6,497	36.1	± 12.0	2	73	0.4	± 0.7
20-29 years	356	36,396	53.2	± 5.5	35	2,384	3.5	± 1.8
30+ years	232	23,583	53.9	± 6.6	38	2,903	6.6	± 3.3
Race								
Black	261	7,585	31.9	± 4.1	48	1,230	5.2	± 1.9
Non-black	379	58,538	55.2	± 4.8	28	4,139	3.9	± 1.8
Education								
<H.S. Graduate	91	9,445	40.5	± 11.7	16	421	1.8	± 1.2
H.S. Graduate	206	18,881	45.3	± 6.6	35	2,020	4.8	± 2.7
Some College	174	16,438	54.9	± 7.7	12	1,610	5.4	± 3.7
College Graduate	160	21,297	63.4	± 7.5	11	1,274	3.8	± 3.0
Marital Status								
Married	483	57,754	52.7	± 4.5	41	4,355	4.0	± 1.7
Other	185	8,761	42.5	± 8.9	34	1,005	4.9	± 2.8
Infant's Birthweight								
Low	276	4,233	40.8	± 4.0	36	430	4.2	± 1.5
Normal	354	62,141	51.9	± 4.3	38	4,912	4.1	± 1.6
Medicaid								
Medicaid at any time ¹	265	20,338	44.5	± 6.9	46	1,766	3.9	± 2.0
Before pregnancy	124	6,852	37.4	± 10.1	32	933	5.1	± 3.1
No Medicaid at any time	377	46,185	54.6	± 4.9	30	3,603	4.3	± 2.0

1. Medicaid at any time was defined as having had Medicaid coverage just before pregnancy occurred, Medicaid-paid prenatal care, or Medicaid-paid delivery.

Table 26
 Percentage of unintended live births by prenatal care payment source
 1998 Michigan PRAMS

	Intended				Unintended			
	Sample n	Estimated N	Percent	95% CI	Sample n	Estimated N	Percent	95% CI
Source of Payment								
Private Health Insurance	490	56,602	67.6 ± 4.7		299	27,075	32.4 ± 4.7	
Medicaid	181	11,859	32.9 ± 7.5		418	24,196	67.1 ± 7.5	
Personal Income	82	11,321	68.5 ± 11		49	5,214	31.5 ± 11.1	
MICHCARE	14	1,580	61.7 ± 24		23	981	38.3 ± 24.1	
Free Care	4	333	88.7 ± 17		5	42	11.3 ± 16.8	
Other	7	230	17.6 ± 15		29	1,076	82.4 ± 14.8	

